ETHNO-EPISTEMOLOGY

NEW DIRECTIONS FOR GLOBAL EPISTEMOLOGY

Edited by Masaharu Mizumoto, Jonardon Ganeri, and Cliff Goddard

Routledge

Ethno-Epistemology

"This is a timely and exciting volume, addressing from various directions the question of whether contemporary analytic epistemology is 'Anglophone' in some problematic way, and exploring the prospects for cross-linguistic and cross-cultural epistemology. These are important issues, and the present volume makes a compelling case for their relevance."

—*Allan Hazlett, Washington University in St. Louis, USA*

This volume features new perspectives on the implications of cross-linguistic and cultural diversity for epistemology. It brings together philosophers, linguists, and scholars working on knowledge traditions to advance work in epistemology that moves beyond the Anglophone sphere.

The first group of chapters provides evidence of cross-linguistic or cultural diversity relevant to epistemology and discuss its possible implications. These chapters defend epistemic pluralism based on Sanskrit data as a commitment to pluralism about epistemic stances, analyze the use of two Japanese knowledge verbs in relation to knowledge how, explore the Confucian notion of justification, and survey cultural differences about the testimonial knowledge. The second group of chapters defends "core monism"—which claims that despite the cross-linguistic diversity of knowledge verbs, there is certain core epistemological meaning shared by all languages—from both a Natural Semantic Metalanguage (NSM) and skeptical perspective. The third cluster of chapters considers the implications of cultural diversity for epistemology based on anthropological studies. These chapters explore real disparities in folk epistemology across cultures. Finally, the last two chapters discuss methods or perspectives to unify epistemology despite and based on the diversity of folk intuitions and epistemological concepts.

Ethno-Epistemology is an essential resource for philosophers working in epistemology and comparative philosophy, as well as linguists and cultural anthropologists interested in the cultural-linguistic diversity of knowledge traditions.

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Introduction

Masaharu Mizumoto

Suppose that speakers of one language generally agree to attribute knowledge to someone in a particular situation, while speakers of another language generally agree to not attribute knowledge to the same person. This may be due either to a cultural-psychological difference or to a linguistic difference. In either case, there is no obvious cognitive fault on either party, or at least no such a thing is needed to explain this "disagreement."

Peer disagreement has been a hot topic in epistemology for a while. There, philosophers debated over whether there can be faultless disagreement between peers over philosophical issues. It has often been thought or claimed that, if there is such a thing as faultless disagreement, it would generate serious skepticism about philosophy of the topic in question. Cross-cultural or cross-linguistic disagreement described above, if there is any actual instance of it, would seem to be a paradigmatic example of faultless disagreement. So one might wonder whether such a disagreement implies an analogical skepticism about the philosophical topic in question.

In the Manifesto of *Epistemology for the Rest of the World* (hereafter EFROW), Stich and Mizumoto suggested the possibility of such *cross-linguistic disagreement* in epistemology, using the example of knowledge verbs (Stich and Mizumoto 2018). If, for example, a knowledge verb in a language is significantly different in its extension from the English verb *know*, then one possible implication is that the epistemology of Anglophone philosophers is just *English epistemology*, there being many other language-specific epistemolog*ies*. As recently as 2016, K. Mortensen and J. Nagel still said, citing the work of Nagel et al. (2013), Turri (2013), and Kim and Yuan (2015) for Gettier cases and Seyedsayamdost (2015) for other epistemological cases:

> Over the past fifteen years, experimentalist critics of armchair philosophy have claimed to find dramatic diversity in intuition along a variety of demographic dimensions, including age, gender, personality type and ethnicity. However, to the best of our knowledge, none of these claims has clearly withstood subsequent empirical testing.
> (Mortensen and Nagel 2016, sec. 4.4.1)

However, the situation has been changing since the publication of EFROW (Mizumoto et al. 2018). In that volume, for example, Mizumoto reported results of his surveys indicating that the two Japanese (propositional) knowledge verbs, *shitte-iru* and *wakatte-iru*, are used quite differently from each other, and in particular, the use of *shitte-iru* is significantly different from that of English *know* (Mizumoto 2018). In the same volume Ganeri argued that in Sanskrit tradition there are two knowledge verbs, *jñā* (*jñāna* in its noun form) and *pra* (*pramā* in its noun form), whose meanings are also quite different from each other, and illustrated in particular how *pramā* is used differently from English *knowledge* (Ganeri 2018). They are just two examples (among others) of potential cultural/linguistic diversity reported and discussed in the volume. If they are valid, they open the possibility that there are multiple language-dependent concepts of KNOW or KNOWLEDGE in the world, and what is captured by English *know* is only one of them. Note that the *intra-linguistic* differences between knowledge verbs, such as those in Japanese and Sanskrit, already make the linguistic disparities in the extension of knowledge verbs inevitable.

There are of course several obvious disanalogies with the standard philosophical debates about peer disagreement. First, if people are speaking different languages they are *literally* "talking past each other," there being no genuine disagreement in the first place. Second, at least until today, there has been no analogous debate over, say, whether a person in a particular situation knows a fact or not, between philosophers of different linguistic backgrounds with each appealing to the intuition originating from the concept specific to one's own language. (For such debates are usually conducted in one particular language, mostly in English.) Third, even if we could control the cultural-psychological factor, the cross-linguistic disagreement would pose a serious problem for philosophers only insofar as one assumes that *folk concepts* play a significant role in philosophical investigations. Thus, even if a cross-cultural/cross-linguistic disagreement in epistemology exists and is taken as an undeniable instance of faultless disagreement, the implications will be considerably different from those of ordinary peer disagreement. It will be helpful to review some of the implications here.

Concerning the first point, it would seem that Anglophone epistemologists have to admit that what they have been doing is *English* epistemology, at least to the extent that it is based on English-specific concepts. The available defense would be either to claim that studies in other languages are doing something *other than epistemology* (chauvinistic monism, as we shall see later) or to insist that epistemology is or can be totally independent of folk concepts (as we will discuss later).

In relation to the second point, actual dialogues between peers are usually required for assuring that no trivial misunderstanding or ignorance is involved in the disagreement. In the case of cross-linguistic disagreement,

however, we can simply assume that members of each linguistic community are generally competent of their own language (with no ignorance and misunderstanding about their own language) so that we usually do not have to worry about any cognitive faults on either side of the linguistic community unless there is a specific reason to think otherwise (though certainly some philosophers would like to be committed to a massive error theory, as we shall discuss later). Others may be open to relativizing or pluralizing epistemology. In its most radical formulation this position would hold, in effect, "there is no such thing as epistemology, but there are only *epistemologies*, or what we may call (though this term is not our invention) *ethno-epistemology*." There may be many intermediate positions, too.

Both these points in turn depend crucially on the third point, that is, the question of the role of folk concepts in "professional" epistemology. In this connection it must be noted that simply claiming that terms in epistemology such as "knowledge," "belief," and "truth" are *technical terms*, would not be any help for Anglophone epistemologists, since one can equally well use Japanese *shitte-iru* and *wakatte-iru*, or Indian *jñā* (*jñāna*) and *pra* (*pramā*), as technical terms and construct theories (even *formal* theories) about them. Such theories would of course be non-congruent with each other, given the intra-linguistic divergence. (Thus, the response that the use of artificial, formal language solves the problem is equally too naïve.)

The main purpose of the present volume is to further pursue the implications of cross-linguistic/cultural diversity for epistemology, while also supplementing the available data (building on EFROW) and exploring possible responses to such facts (if facts at all).

The first several chapters provide further evidence of such cross-linguistic/cultural diversity relevant to epistemology and discuss its possible implications. In "Epistemic Pluralism From Systems to Stances" (Chapter 1), J. Ganeri tries to secure the position of pluralism from criticisms by carefully examining the notion. His contribution to the earlier volume ("Epistemology From a Sanskritic Point of View") advocated epistemic pluralism about propositional knowledge by providing detailed analysis of Sanskrit knowledge verbs (or candidates for the counterpart of "know"), *jñāna* and *pramā*, discussed in the Sanskrit epistemological tradition. In the present volume, he first tries to clear the misunderstanding of the critics of pluralism, using a specific example of Paul Boghossian (in section 2). According to him, even if Boghossian's criticism against epistemic *relativism* is correct, that does not amount to the case against epistemic *pluralism*. The crucial distinction here is between pluralism about epistemic *systems* (a set of epistemic principles) and pluralism about epistemic *stances*. Where epistemic systems are sets of general normative propositions (specifying under which conditions a belief is justified) (p. 20), a stance is a policy adopted towards the employment of epistemic principles

(p. 25). Ganeri elaborates this distinction by introducing the distinction of Jaina philosophers between epistemic principles (*pramāṇas*) and epistemic stances (*nayas*) and quotes Anjan Chakravartty saying that "[s]tances are not themselves propositional; they are guidelines for ways of acting. One does not believe a stance in the way one believes a fact" (*ibid.*). Ganeri claims that epistemic pluralism is a commitment to pluralism about epistemic stances (Stance Pluralism), not to pluralism about epistemic systems and that Boghossian's criticism applies only to the latter, not to the former: "it is possible for there to be pairs of genuinely alternative epistemic stances and no facts by virtue of which one is more correct than the other" (*ibid.*). There he uses analogies like different routes to the summit of a mountain (which reappears several times later). Ganeri then introduces another Jaina distinction between inclusive and dogmatic ways of adopting a stance and argues that if we stop dogmatically holding a stance there should be no problem with Stance Pluralism. This non-dogmatic attitude is reflected in yet another Jaina thesis, that "reality is in some sense manifold or multifaceted" (p. 27). There, each (non-dogmatic) epistemic stance is an approach to one aspect (*ekadeśa*) of the world, and "[d]ifferent stances are policies for warranting beliefs about different aspects of the world" (*ibid.*). Ganeri further elaborates Stance Pluralism using the notion of "style of enquiry" by Geoffrey Lloyd (section 4) and "plural realism" of Hubert Dreyfus and Charles Taylor (section 5). Then, after elaborating Karin Cetina's thesis in her study of knowledge societies, that modern science itself epistemically plural (as the title of section 6 goes), Ganeri goes on to discuss various specific epistemic stances, which include not only Sanskrit ones but also European Scientism and European Colonialism, which are deemed dogmatic. He describes the colonial stance as "fear of other knowledge," in contrast to Boghossian's description of relativism as implying a "fear of knowledge." Ganeri concludes his paper by citing Dewey's last lecture, which was titled "The Idea of Pluralism." The point of this chapter, stated in the very last sentence, was to depict a picture in which various contemporary thinkers (finally) have begun to converge on a version of solution envisioned by the Jainas, which Ganeri describes as "deeply encouraging."

In "Knowing How and Two Knowledge Verbs in Japanese" (Chapter 2), Mizumoto, Tsugita, and Izumi present data on the use of two Japanese knowledge verbs (*shitte-iru* and *wakatte-iru*) in the context of knowing how constructions, also comparing the data with that of the use of English "know how." Although the intra-linguistic difference was not very large, the overall differences of the knowing how ascription pattern clearly show that the Japanese conception of knowledge-how (whether based on *shitte-iru* or *wakatte-iru*) is radically different from its English counterpart. In particular, knowledge-how captured by Japanese knowing how constructions is knowledge of the (subjective) description of how one *ought* to do something, whereas the English counterpart by

default implies ability to do something, together with a (true) belief about it. These findings pose a special problem for Anglophone epistemologists because, in the case of propositional knowledge, even though there may be (cross- and intra-linguistic) differences in extension in epistemologically interesting cases (as shown in Mizumoto 2018), we could still think that there is a large agreement in paradigmatic cases (like "knowing that it is raining now," when one sees the rain outside), whereas in the case of "knowing how" there is a radical disagreement even in such paradigmatic cases as knowing how to swim, how to ski, how to ride a bike, etc. This is because Japanese knowledge-how, being knowledge of how one ought to do something, is not affected by the lack or possession of the agent's relevant ability. Mizumoto and colleagues consider three possible implications of their own data: 1) pluralism, 2) thin monism, and 3) chauvinistic monism. All of them are relevant to the possible responses to cross-linguistic/cross-cultural data discussed in this volume. But even if the data they provide support pluralism, whether that is evidence for stance pluralism or even pluralism about epistemic systems in Ganeri's sense, is to be seen in the future discussions and further surveys.

In EFROW Ganeri had pointed out that the notion of epistemic justification is idiosyncratic to Anglophone (or Western) epistemology, saying, "justification is a parochial feature of a way of thinking rooted in English lexical quirks" (Ganeri *ibid*: p. 15). But if he is right, it may also be possible to present *non-Anglophone* or *non-Western* theories of epistemic justification, very different from the one in the analytic tradition.

Yingjin Xu presents just such a theory of justification in his " 'The Rectification of Names' as a Confucian Theory of Epistemic Justification" (Chapter 3), He says that the Confucian notion of "justification" is nothing but the notion of "the rectification of names," which "depicts how a justifying subject should attribute predicates with *normative* elements to different objects (including artefacts) or persons or social constitutions or even actions." The core idea, according to Xu, is that such various things should be in accordance with their "names," for otherwise "their existence cannot be endorsed from a normative point of view," or if wrong names are attached to them, "wrong norms embedded in these wrongly attached names would be applied to the reality as well, and mismatching of this type would systematically produce social disorders of this form or another" (p. 79). One might then think that such an idea is applicable only to political/ethical issues. However, Xu says, "name" in the Confucian texts can be quite general, its instances including names of natural kinds, mental states or, as he cites from an actual text, forms, colors, pitches, timbres, tastes, and so on (p. 80). But one important caveat here is that "name" in Chinese (名) refers more often to general names than to proper names. Thus, it should be better characterized as a propositional function or a predicate, rather than a term. It follows that, according to his formulation in D-1, "S is justified in holding a belief of the form

$R(a)$" is true if and only if other descriptions of a (other than "$R(a)$") actually acquired by S are instantiations of norms encapsulated in the function $R(x)$ (p. 81). Though he claims that this provides a novel theory of epistemic justification, one might think that this is just a variant of the internalist theory of justification. The important differences from a standard internalist theory of justification are, 1) the norms associated with the name are objective, independent of what individuals actually associate with the name and 2) the norms may include meta-norms, norms about how to revise norms when necessary. However, the crucial difference may be that, in this theory of justification, the object of belief, rather than the believer herself, is often responsible for the failure of justification. If a ring fails to satisfy the name "gold," then the ring must be replaced by a genuine gold ring, instead of the name being retracted. As Xu mentions, this theory can easily be extended to include a theory of knowledge, through the norms associated with the name "knowledge," which determine whether a belief deserves the name "knowledge." Thus, this theory of justification may constitute an alternative epistemological system which is very different from the contemporary mainstream (Anglophone) epistemology.

In "Testimony, Credit, and Blame: A Cross-Cultural Study of the Chicago Visitor Case" (Chapter 4), Ryan, Mi, and Mizumoto present empirical data on surveys with Taiwanese Chinese and American participants concerning Jennifer Lackey's Chicago Visitor case. Though their interest is mainly in the epistemology of testimonial knowledge, they not only asked participants about the blameworthiness of the testimonial recipient when the testimony turned out to be false—to see if there is a symmetry of epistemic credit and fault attributions to the recipient—but also presented some hypotheses about cultural difference, based on the general understanding of the Western culture as individualistic and the East Asian culture as collectivistic. Their results turned out to be consistent with such hypotheses about cultural variance, and as a result the overall data undermines theses such as, 1) epistemic praiseworthiness tracks knowledge and 2) epistemic blameworthiness tracks false belief and is still compatible with theses that epistemic praiseworthiness tracks either justified belief or just true belief and that blameworthiness tracks unjustified belief, if we can assume that the Anglophone notion of epistemic justification is applicable cross-culturally. But even independently of the issue of cultural variance, there were neither general high scores nor general low scores of credit attribution to the testimonial recipient in the Chicago Visitor case in both Taiwanese and American data. Such results, the authors suggest, should generate new debates over the assumptions of the Chicago Visitor case and testimonial knowledge in general in the literature, as well as invite further empirical research.

Testimony is also the central topic of the contribution by linguist Elin McCready. His main concern in his "Linguistic Strategies against Epistemic Injustice" (Chapter 5) is epistemic injustice, attribution of unjust

epistemic credibility or reduced epistemic authority, and he examines it from a linguistic perspective. He starts with the case of gender, rehearsing his own earlier experiments. He then discusses three possible linguistic strategies to cope with epistemic injustice in general, which include the uses of relevant particles in Japanese and Cantonese. As he notes in the concluding section, such strategies are not available in English. This fact already has significant consequences to the current epistemological studies on testimony. For example, the surveys of Ryan, Mi, and Mizumoto used the Chinese translations of the Chicago Visitor case and its variant, which was of course originally formulated in English. Though these vignettes do not contain direct quotes of the testimonies (but only indirect descriptions of them), it can easily be imagined that the Chinese colloquial translations of English (colloquial) testimonies would lack any relevant particle, which may be ideal for their investigation of the cultural-psychological difference. However, this also means that the judgments about the testimony in colloquial English assumed in the theorists of testimony or testimonial knowledge cannot easily be generalized. If we are to judge the credibility of a testimony, we may not be able to judge it independently of the language in which it is expressed. Or we may even say that there is no such thing as language-independent testimony. This would then cast doubt on the universality of the theory of testimony, demonstrating yet another instance of the relevance of the linguistic diversity in epistemology.

There can be a variety of responses to the pluralist claim. The most common is naïve ethnocentrism, which is, simply put, the attitude of "Who cares?" This is the attitude of those who do not even bother to know the details of the pluralist data. People with this attitude are certainly not readers of this volume. On the other hand, some other monists are conscious of such data but are committed to the denial of all of them as irrelevant in epistemology, holding that alleged knowledge verbs (or other epistemic terms, *mutatis mutandis*) in other languages, if they have different extensions, are not knowledge verbs at all, at least in the sense in which *know* is a knowledge verb. This is what Mizumoto, Tsugita, and Izumi called "chauvinistic monism," and it is certainly one epistemological position that deserves attention and discussion (unlike naïve ethnocentrism). Still another response is standardizationism, which holds that it is a matter of standardization that people in the "rest of the world" must accept or acquiesce to terms and discussions in Anglophone epistemology or Anglophone philosophy in general, if they are to do epistemology (or even philosophy), at least in the analytic tradition. Anglophone terms and concepts must simply be accepted for the productivity of the field because, it might be argued, we cannot do without a common language and a common framework, and Anglophone philosophy just happens to provide it today.[1] Indeed, some may even hold that contemporary science itself is such an example. This in a sense admits the lack of grounds for people in the rest of the world to subordinate themselves to Anglophone

epistemology, except for a purely pragmatic reason. These three responses are basically "reactionary" positions, in the sense that they try to defend contemporary Anglophone epistemology as it is now.

But monists can instead positively justify the unity of epistemology through empirical evidence. One straightforward way to do it is *core monism*, which claims that despite the cross-linguistic diversity of knowledge verbs, there is certain core epistemological meaning shared by all languages. In his "Overcoming the linguistic challenges for ethno-epistemology: NSM perspectives" (Chapter 6), Cliff Goddard, a leading figure in the linguistic research program known as the Natural Semantic Metalanguage (NSM) approach, claims that KNOW is a semantic prime, continuing the contribution of Anna Wierzbicka, the founder of the NSM program, to EFROW (Wierzbicka 2018). Semantic primes are terms that express irreducible universal semantic units, in terms of which the meanings of all other lexical terms, in all languages, could be decomposed: "[s]emantic primes and their associated grammar comprise a kind of mini-language: hence the term Natural Semantic Metalanguage" (p. 134). Though NSM researchers are linguists, not philosophers, from the point of view of epistemologists they can be regarded as monists because as they count KNOW as one of claimed inventory of 65 universal (and, hence, cross-translatable) semantic primes.

There are a couple of interesting twists to the NSM position. The first is the claim is that although the primary meaning of English *know* is a semantic prime and hence semantically irreducible, the same does not apply to other key terms of Anglophone epistemology, such as *belief, justification*, and even the word *knowledge*. Goddard argues that the word *knowledge* is semantically complex and language-specific, not simply the noun version of KNOW. This puts the NSM school of semantic analysis into a complex (partly agreeing, partly disagreeing) relationship with the "knowledge first" approach of Williamson (2000). Second, the NSM linguists count TRUE as a semantic prime, though (echoing their stance on *knowledge*, in this respect) they argue that the English noun *truth* is semantically more complex than TRUE. Third, returning to KNOW, it is argued that the claimed semantic prime KNOW can appear, universally, in four different grammatical frames, as in the following list (table 6.1, p. 135):

(i)   I know
(ii) this someone knows it
(iii) this someone knows something
(iv) this someone knows something about something
      (including also: know a lot about . . ., know more about . . .)

Strikingly, the "know that . . ." frame, i.e. KNOW with a so-called "propositional complement," does not appear among the posited universal frames for KNOW. Goddard seeks to show that it is decomposable.

The NSM position is thus difficult to position within the present picture; it claims that there are universal, cross-linguistically stable anchoring

points for epistemology, such as KNOW and TRUE, but at the same time it argues that all the other standard Anglo terms, such as *belief, knowledge, justification, testimony*, and many others, are complex and English-specific and hence unsuitable as a basis for a general epistemology. At least the implication is that radical language reform is needed if mainstream epistemology is to de-couple itself from its Anglocentric moorings.

In her "Skeptical Arguments, Conceptual Metaphors, and Cross-Cultural Challenges" (Chapter 7), Julianne Chung presents a new approach to core monism from somewhat unexpected quarter, that of skepticism. She presents data from pre-modern Western epistemology, Indian (Sanskrit) epistemology, and Ancient Chinese philosophy and argues that skepticism (and responses to it) is a cross-cultural phenomenon. But if she is right, why should skepticism be a shared tendency of all human inquiry into knowledge? Drawing on the conceptual metaphor theory of George Lakoff and Mark Johnston (1980), together with an empirically informed developmental story, she, as an answer, argues that BELIEVING IS KNOWING is a primary conceptual metaphor. One might think that such a proposal can only explain the *non-literal* usage of knowledge verbs. However, Chung presents examples of the uses of "know" that suggests that the uses are generally non-literal and metaphorical, which provides a unified theory of its use, and this metaphor plausibly also explains both the appeal of skeptical arguments and the apparently veridical use of knowledge verbs, together with the variability of their uses with the stakes and salience. About the latter, she says;

> And although mainstream explanations of such tensions in our use of knowledge-attributing sentences have been literalist in nature, non-literalist approaches—such as the one motivated here—offer interesting alternatives, underdeveloped in this domain, that promise to shed light on these elusive problems.
>
> (p. 173)

She continues, by considering various different propositions expressed by "S knows p";

> Indeed, the fact that there is such an expansive and elusive array of such propositions may help to explain why epistemologists have struggled to the degree that they have in specifying the truth-conditions of knowledge attributing sentences, or the criteria for knowing.
>
> (p. 174)

Thus, according to Chung, different uses of knowledge verbs in the world can also be explained in terms of the different *metaphorical* usages of such knowledge verbs. Since, here, their *literal* meanings are presumably fixed and limited in variation, this is a version of core monism based on a linguistic theory and developmental psychology.

One characteristic of core monism is that to the extent that it is primarily concerned with the shared core concept of knowledge, it is inevitably silent on many epistemologically important cases, where epistemologists, as well as ordinary people with different languages, disagree. In this sense, any such theory of knowledge by empirical monists is incomplete (thus Mizumoto and colleagues in Chapter 2 called it *thin monism*). Chung's approach avoid this problem, but she admits different propositions expressed by using different knowledge verbs, her monism is compatible with pluralism.

Another version of empirical core monism (though by no means incompatible with the earlier versions) may be based on what John Turri proposed in EFROW (Turri 2018), namely the one based on the primatological approach, which can be seen as a more empirically informed version of Kornblith's (2002) cognitive ethological approach (though Kornblith was interested in knowledge as a natural kind, while Turri is concerned with the concept of knowledge). Just as Kornblith saw human knowledge as continuous with animal knowledge, Turri looks at the human needs common to animal life in general, and thereby tries to find evolutionary underpinnings, which will vindicate what he calls the core human knowledge concept. This view is, however, criticized in an unlikely place in the present volume, a chapter focusing on delusion by Dominic Murphy. In his "Delusions Across Cultures" (Chapter 8), Murphy considers the possible cultural variance of delusion. If Turri is right, the concept of knowledge is universal and the cultural diversity of delusion would not have any epistemological significance. Murphy then presents two problems with Turri's view. The first is that there are many deviant belief fixation processes that are nevertheless fully intelligible, which requires us to consider beyond Turri's concern about a shared human capacity for assessing knowledge claims, inherited from a primate system (pp. 189–90). Turri may respond that such beliefs (and belief formation processes) are not concerns of epistemology, but Murphy's discussion includes the case for the conception of folk epistemology as a component of folk psychology.

His second point is much more serious. Even if a shared human social-cognitive system is part of the human cognitive architecture and there is thus a general concept of knowledge, such as the one Turri claims is shared across cultures, the latter should be "tied to much more recent advances in literacy and the cognitive foundations of industrial society." To show this, Murphy appeals to *anthropology*, as "another option that [Turri] overlooks" (p. 190). Following anthropologist E. Gellner, Murphy suggests that traditional societies "adhered to custom-bound, ritualized cognitive practices dominated not by the desire to get things right about the world, but by social and religious concerns." (*ibid.*) Thus,

> If these hypotheses are correct, modern epistemology reflects the cognitive practices needed to do science and is actually the record of a historic achievement. It marks a historical shift away from the

human norm that subordinates knowledge to social conventions and seeks isolated, rather than unified, perspectives on the world.

(p. 191)

If this is true, it follows either that "primate evidence and the modern evidence concern two different cognitive natures, one that evolved in the great apes and one that spread around the modern world with the expansion of modern scientific practices" (p. 192) or that the modern one is only what has survived and been preserved from the original primate cognitive abilities, which was later amplified and generalized. In the latter case, since the primatological evidence concerns only a few activities, like finding food and predicting the activities of others, "modern industrial/scientific societies are those that have learned to treat everything of human concern as effectively as great apes treat food and social relations" (p. 192).

Murphy uses this argument to support the "real disparities in folk epistemology" revealed by anthropological data. According to him, delusions are inexplicable beliefs in the sense that they fail to be explained by the "ways in which folk epistemology, broadly construed, countenances the formation of beliefs" (p. 187). Given this definition, cross-cultural variance of delusion attribution would follow from cross-cultural variance of folk epistemology, if there is any. He consults the several definitions of delusion in DSM (the Diagnostic and Statistical Manual of Mental Disorders) and analyzes the underlying assumptions there, from the perspective of universalism and particularism about mental illness.

In the last section of this chapter, Murphy questions the notion of belief in general, following Stich and others, presumably in order to undermine the idea of universal function that is to explain the common "belief forming process." He then returns to the arguments from anthropology presented in section 2, and concludes:

Delusions are universal in the sense that they can occur anywhere, but they are not universal in the sense of arising from a shared, evolved folk psychology. They are a byproduct of standards for legitimating belief that are inescapably modern.

(p. 199)

In this way cultural variance of delusion goes hand-in-hand with cultural variance of folk epistemology.

The implications of cultural diversity for epistemology based on anthropological studies are explored more generally in Søren Klausen's "Challenges for an Anthropology of Knowledge" (Chapter 9), from a meta-epistemological point of view. While Murphy used anthropology negatively to criticize a particular epistemological view, Klausen emphasizes the difficulty of deriving anything epistemologically positive from anthropological data, which are supposed to provide an instance of epistemic practice that is both sufficiently "local" and

epistemologically interesting. He predicts that there is "little room for a cross-cultural, or otherwise culturally sensitive and applied social epistemology" (p. 207) and surveys literature about anthropology of knowledge. According to him, special features of apparent alternative knowledge practices, under close scrutiny, "reflect the peculiar nature of their subject matter rather than the use of alternative epistemic practices or policies" (p. 210). He concludes that he cannot find any epistemic practice that is both local and illuminatingly describable in epistemic terms and that "there seems to be little chance of encountering significantly alternative ways of using or understanding basic epistemic sources" (*ibid.*). He then suggests that we should direct our attention to the *higher-order* epistemic practices, which are, according to him, "selecting, weighing and balancing sources and inputs" (*ibid.*). More specifically,

> First-hand evidence may be weighted differently against expert testimony and established abstract or "theoretical" beliefs. Trustworthiness may, though generally conceived in a broadly reliabilist manner, be flagged and identified in very different ways. It may for example be seen as closely connected to moral character or even strength of religious belief [. . .] or as having more to do with the educational background or documented track record of the testifier. And some cultures or groups may favour certain representational formats over other, e.g. emphasize learning-by-doing, and the acquisition of tacit knowledge or knowing-how, over verbalized and instruction-based knowledge. Pictorial representation may be more central to some knowledge practices than others [. . .]. Some cultures may follow more risk-friendly or risk-averse epistemic policies, working with different evidential thresholds or putting more or less emphasis on testing, control and certification.
>
> (pp. 210–1)

He refers to the study on illiterate Russian peasants by Luria and the studies on the history of science, among others. He concludes by recommending further empirical studies, saying "It seems worth the try to get out of the armchair and into the wild, wearing the epistemologist's glasses, but prepared to delve into the complexities of actual human affairs" (p. 214).

One may try to examine Klausen's point by considering the contribution of a practicing anthropologist, Satoshi Nakagawa, who reports an exotic epistemic practice of the people of Ende, on an island in eastern Indonesia in "How to Buy Knowledge in Ende—An Ethnoepistemology from Eastern Indonesia" (Chapter 10). His chapter takes the style of a detective story. He first claims that for the Ende people, the proper way of acquiring knowledge is to buy it. He then describes the exchange practice of Ende in a gift-oriented society, the roles of witches and healers, and even the details of the Ende kinship system, being truthful to the anthropological manner of explanation based on "total social facts." He finally places the practice of knowledge acquisition within this system of social practice. Though this practice of buying and selling knowledge is limited

to acquiring/giving mystic or esoteric knowledge (what Nakagawa calls "illegitimate" kind of knowledge), even if it was about general knowledge, buying and selling knowledge is common in modern societies, such as subscribing to a newspaper. However, the point of Nakagawa's paper is that in the very traditional Ende society where the roles of witches and healers are dominant, such knowledge exchange practices are intrinsically embedded in the exchange practice based on the Ende kinship system. Such knowledge, if it is sold at all, must be first sold to people of other patrilineal groups. Or if it is given to them for free as a gift, that will change the present structure of the patrilineal groups.

Contemporary epistemologists might explain such practices about knowledge transmission in terms of the ordinary model of testimonial knowledge, finding no need of its revision any more than adding, perhaps, "other social complications aside." Even for Klausen, it may not be clear that such descriptions are still epistemologically interesting, showing any alternative *higher-order* epistemic practices. But there may be other, more straightforward, ways of appreciating the epistemological significance of such anthropological data. First, the "illegitimate" knowledge discussed there should not be taken as a special kind of knowledge *on top of* the normal kind of knowledge shared by other (including Western) societies, since the "legitimate" kind of knowledge is also a special kind of knowledge (about clan histories, myths, rituals, etc.), while the Ende counterpart of "know" would not be used for everyday kind of knowledge. Indeed, this "illegitimate" kind of knowledge is a genuine (or even the most important) part of their system of knowledge, given that the background system (witches, healers, the kinship system, etc.) in which such knowledge is embedded penetrates the whole life of the Ende people. But this also suggests, as Klausen himself admits, that "epistemological and other normative questions appear almost inextricably intermingled" (p. 203). If we take this point seriously, it is natural to expect cultural variance even in the epistemic/non-epistemic distinction, together with the notion of "epistemic success." If that is the case, knowledge itself should also be intrinsically related to such "social complications." In this connection, L. Wittgenstein explicated with many thought experiments that our concepts are what play the roles in language games, which are embedded in our form of life (Wittgenstein 1953). E. Craig focused on what the concept of knowledge does for us (rather than giving necessary and sufficient conditions) and started his *conceptual synthesis* from considering what role knowledge plays in our lives (Craig 1990). From these views and approaches it naturally follows that radically different social practices about knowledge may lead to radically different conceptions of knowledge, and if so, the *concept* of knowledge and indeed the *value* of knowledge would be significantly different if embedded in a very different form of life. (Note that, though Nakagawa describes what he reports there as "pragmatics" of the Ende knowledge verb (section 1.1), what he means by it is only *how a word is used*, and

hence is compatible with the *semantic* consequence its use may have.) Then, the crucial question is whether we can clearly draw a distinction between epistemic and non-epistemic practices or whether we can legitimately reduce such anthropological data to mere social complications of non-epistemic (e.g. economic) practices, without begging any question (see also endnote 2). This requires thorough discussions by epistemologists in future, for which specific examples like the one reported here are necessary.

So far all the monists and pluralists we have seen have assumed the constitutive role of folk intuitions and practices for epistemological concepts. But monists may alternatively propose a radical break from folk intuitions and practices, as Allan Hazlett proposed as *Divorce* (Hazlett 2010). One such approach is Dretskean information-theoretic account of knowledge (which Mizumoto suggested in his contribution to EFROW). Note, however, that this approach 1) still heavily replies on the notion of belief and 2) tries to accommodate the Gettier intuitions (though Gettier intuitions are reportedly universal, according to Machery et al. 2017).

The information-theoretic approach and other approaches of earlier empirical monists, however, are all *theoretical*, in the sense that they are concerned with questions like "What is knowledge?", "When and how is belief justified?", etc., which are to be answered with some theory of knowledge, justification, etc. On the other hand, in his "Conceptual Construction in Epistemology" (Chapter 11), Thomas Grundmann proposes an *instrumental* approach, an alternative monist approach that is allegedly independent of any folk concepts or intuitions, which Grundmann calls *alethic instrumentalism*. He first claims that the "final epistemic goal" is to maximize true beliefs while minimizing false beliefs, and for him, the practical question of how to achieve this goal should precede theoretical questions, since an epistemological theory and even new technical terms are derived instrumentally for achieving this goal, having therefore only instrumental values. Grundmann (in section 1) does acknowledge the importance of the data of cross-linguistic/cultural divergence, which is indeed one of the important motivations for his project. But he uses such data to support skepticism about the relevance of epistemic folk concepts or folk epistemology in general to standard analytic epistemology (SAE). He considers (in section 2) alternative (monist) approaches like (Kornblith's) full-blown naturalism, Carnapian explications, conceptual ethics (of Burgess and Plunkett), and (Alston's) epistemic desiderata approach, all of which he finds unsatisfactory. This is where Grundmann proposes his alethic instrumentalism, which is best explained (or justified), according to him, by objective epistemic values. Maximizing true beliefs (being informative) while minimizing false beliefs (being reliable) is intrinsically valuable, from which further instrumental values can be derived. In the concluding section, he describes his approach as a "kind of truth-technology that assesses the instrumental value of belief-forming mechanisms with respect to the properly qualified truth-goal" (p. 243). From the perspective of this

approach, "internalist aspects of justification, non-actual world reliability, unrestricted closure, or knowledge do not play any significant role" in epistemology anymore. This is indeed a "radical change" in perspective, highlighted by a "change in epistemic terminology" (*ibid.*).

Grundmann (understandably) thinks that this approach is independent of any folk epistemic concepts. However, setting an ultimate goal while being otherwise instrumental does not by itself assure independence from folk concepts (nor, therefore, from epistemological monism), for the goal itself may be formulated in language-specific terms. For example, one epistemic goal may be to increase "knowledge" as much as possible, and therefore, one epistemic principle may be fined-tuned to increase what one "knows," while another principle may be fine-tuned for what one "shitte-iru" and still another for what one "wakatte-iru." They are then surely not compatible with each other in some situations. Yet if each principle is best adapted to each epistemic goal, we cannot say that one is "better" than others, at least epistemologically. This problem of pluralism is not immediately solved just by using true/false belief, instead of knowledge, since, according to the NSM linguists like Goddard, English epistemic terms like "belief," "truth" (if not "true"), and "falsity" are all English-specific (in the sense of being not semantic primes and not cross-translatable). If so, the relevance of the folk concepts comes back, since it follows that the "final epistemic goal" itself is formulated in English-specific terms. Moreover, Murphy and anthropologists like Nakagawa would question the cultural independence of the value of maximizing true beliefs while minimizing false beliefs: it may be a primary epistemic concern only in a specific culture (of modern industrial societies).[2]

Thus, given the difficulty of defending SAE that is independent of any folk concepts (as sketched by Grundmann), the fate of Grundmann's alethic instrumentalism, like much else in contemporary epistemology, hinges on whether the universality of notions like truth, falsity, and belief can be defended. The notion of belief may be defended by claiming that it is a technical notion that can be characterized and justified independently of any specific language so that the epistemic goal of maximizing true beliefs while minimizing false beliefs can be seen as universal. Even if in some cultures there may be more important values and virtues (such as religious principles, conformity, honesty, etc.), monists may argue that all such values can safely be judged *non-epistemic*. Whether Grundmann (or anyone) can defend his approach or not, as well as whether the clear distinction between epistemic and non-epistemic values can be drawn without begging any question, are therefore crucial epistemological questions on which the large part of future epistemology depends, and therefore they should be considered and discussed by both monists and pluralists seriously.

Finally, also methodological is the topic of "Experimental and Analytic Philosophy in the Reflection of Comparative Philosophy" (Chapter 12) by Anand Vaidya and Purushottama Bilimoria. There, they try to

reunify analytic philosophy, experimental philosophy, and comparative philosophy through what they call ACE philosophy. Unlike Grundmann, they are interested in how to decide the correctness of the Universality Thesis (UT) discussed by Stich and Mizumoto (2018), using the case of the comparative survey of Indian and American subjects. They point out that it is hard to find appropriate subjects for this purpose, since the ideal Indian subjects in this context are those who have never learned English so that they are not "Westernized" so much. But they also emphasize the role of traditional conceptual analysis prior to the empirical study, so that the appropriate concepts should be used for the survey. In particular, Vaidya and Bilimoria (in section 2) examine *pramā* as a Sanskrit counterpart of English "know" and point out and emphasize the etymology of its meaning as deriving from *to measure*. They consider the possible divergence of meaning between "know" and "pramā" because of this etymological difference, especially in relation to inference. Then they compare Sanskrit *pramāna* theory with Anglo-European epistemology in general, observing six differences (section 3). Among them, the contrast in agenda, where Anglo-European epistemology is concerned with the *genus* knowledge, while *pramāna* theory is concerned with its *species*, is interesting and important. But they nevertheless think that the two traditions are investigating the same thing, where "each investigation is concerned with a different aspect of the question [what experiences connect us to the world in an important way?] through a different orientation" (p. 261). Their most important methodological proposal, however, is what they call (in section 4) the *bi-directional method*. Unlike the unidirectional method, where the examples and topics to be surveyed originate from the Western tradition and are then applied to the population in the "rest of the world" to test whether the same results will be obtained as those of the Western population (i.e. whether UT holds), the bi-directional method aims to test also the opposite direction, using examples from "a variety of traditions North, South, East, and West" (p. 262). After considering the reactions of classical Indian philosophers to Gettier cases in the next section, Vaidya and Bilimoria elaborate in the final section the idea of ACE philosophy, which may be seen as an extension and supplementation of what Stich and Mizumoto (2018) called multi-linguistic/cultural epistemology. In conclusion, they say ACE philosophy is one kind of philosophy, which is, while "difficult and requires teamwork and a lot of training," also highly engaging. and "embraces a cross-cultural and multi-disciplinary methodology that is beneficial to the program of globally informed philosophy," which is exactly what this volume is aiming for.

Whether pluralism is true or not and, if not, which response to pluralism is correct—or if pluralism is correct whether epistemology as we know it today can survive the data of linguistic/cultural diversity at all—are questions that are far from settled in this volume. This project

has only begun in EFROW, of which the present volume is a follow-up. What is clear, however, is that unless one is content with naïve ethnocentrism, any epistemologist must consider and determine one's own attitude concerning this issue, rather than ignoring all linguistic/cultural diversity as an inconvenient truth. This much should be the epistemologically responsible attitude, whichever (monism or pluralism) one believes to be true.[3]

Notes

1. This is a position suggested by Barry Smith, in personal communication with Mizumoto.
2. Note also that, when Klausen claimed that there was no sufficiently interesting epistemic practice at the first-order level, that followed from his stipulation of "epistemic" of epistemic terms as "truth-concerned," that is, "at least partly directed at attaining truth or avoiding falsehood" (p. 205). Thus, the challenge to Grundmann's approach equally applies to Klausen's assumption about the lack of significant cultural difference in the first-order epistemic practice. Klausen says of his stipulation that there should be "nothing problematically ethnocentric" about it (p. 5). And, of course, once we assume the universality of Anglophone epistemic concepts, then it would be hard to find any cultural variance in epistemic practice at this (first-order) level, where all the facts Nakagawa describes, for example, may be nothing more than an exotic episode. But whether it is epistemologically legitimate to describe the radically different epistemic practices in terms of Anglophone epistemic terms ("know," "believe," "is true," etc.) was of course one of the concerns of Goddard. To doubt the legitimacy of such descriptions is to doubt Klausen's first-order/higher-order distinction concerning epistemic practice, acknowledging instead the straightforward (first-order) divergence of epistemic practice and concepts.
3. The editors would like to thank Cambridge University Press for permitting Ganeri's paper (Chapter 1) to be reprinted in this volume.

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1   Epistemic Pluralism

From Systems to Stances*

Jonardon Ganeri

Sanskrit intellectual tradition comprises a plurality of classical Indian philosophical *śāstras*, a *śāstra* being not merely a systematic representation of a network of ideas but a fluid disciplinary practice for the production of knowledge of a certain sort in a certain domain. They have been described, a little misleadingly, as "Sanskrit knowledge systems" (Pollock 2001), and since their concern is not only with the manufacture of a body of belief but with how such beliefs are warranted—how beliefs are argued for and what kinds of evidence can be provided—it seems entirely correct, perhaps better, to describe them also as "epistemic cultures" (Cetina 1999). Although the world of Sanskritic India supported a plurality of such epistemic cultures, they did not exist in isolation from one another but were in constant mutual dialogue and often very vociferous conflict. The Buddhists were concerned not only about the truth for Buddhists but about the truth, and that is why Buddhists spared no intellectual energy in devising refutations of opponent views. The Vaiśeṣikas, the Naiyāyikas, the Cārvākas, were concerned not only about truth for Vaiśeṣikas, for Naiyāyikas, for Cārvākas but stridently engaged each other in philosophical argument often of the highest order of sophistication and complexity. Disagreement of this sort implied a shared commitment to there being data that all agree grounds claims to knowledge and of there being mutually acknowledged instruments for the warranting of beliefs. There was precious little agreement about what that data is or about the nature and proper characterisation of the epistemic instruments, that is about what the Indians called *prameya* and *pramāṇa*, but there was agreement that there must be some correct characterisation of both. The world of the classical Indian knowledge disciplines therefore exemplifies a commitment to pluralism about epistemic practices combined with realism about the world that they discover.[1]

2. Boghossian's Attack on Epistemic Pluralism

Space for this epistemic pluralism seems to vanish, though, in the oscillation between two views that have largely shaped contemporary

discussion: the view, on the one hand, that that science is a single, unified, discipline that discovers a single objective world according to a uniquely valid set of objective epistemic procedures and the view, to the contrary, that truth is relative to the interests, perceptions, background commitments, and values of disparate communal groups. The most influential advocate of the first view in recent times has been Paul Boghossian and, of the second, Richard Rorty. In *Fear of Knowledge*, Boghossian meticulously constructs an argument against epistemic pluralism. The target of his argument is the relativistic view that

> if our judgments about what it's 'rational' to believe are to have any prospect of being true, we should not claim that some belief is justified absolutely by the available evidence, but only that it is justified relative to the particular epistemic system that we have come to accept.
>
> (2006: 62)

Such a view would seem to "give immediate support to the idea that there are many radically different, yet equally valid *ways* of knowing the world". A relativist ought not say that there are many radically different yet equally *rational* ways of knowing the world, because "that would amount to endorsing a use of 'rational' that is absolute, whereas the relativist view on offer is precisely that we cannot sensibly speak of what is rational, period, but only of what is rational relative to this or that accepted epistemic system" (2006: 63, n. 5).

The notion of an "epistemic system", in Boghossian's usage, is that of a collection of epistemic principles, epistemic principles being defined as "general normative propositions which specify under which conditions a particular type of belief is justified" (2006: 85). There are "generation" principles, which generate a justified belief on the basis of something that is not itself a belief, and there are "transmission" principles, which prescribe how to move from some justified beliefs to other justified beliefs (2006: 65). Again, there are "fundamental" epistemic principles, principles "whose correctness cannot be derived from the correctness of other epistemic principles" and "derived" epistemic principles, whose correctness can be so derived. The way of fixing beliefs that we call "science", Boghossian suggests, is but a rigorous application of certain "ordinary, familiar" fundamental epistemic principles. In particular:

(Observation) For any observational proposition p, if it visually seems to S that p and circumstantial conditions D obtain, then S is prima facie justified in believing p.[2]

(Deduction) If S is justified in believing p, and p fairly obviously entails q, then S is justified in believing q.

(Induction) If S has often enough observed that an event of type A has been followed by an event of type B, then S is justified in believing that all events of type A will be followed by events of type B.

And perhaps also

> (Inference to the best explanation) If S justifiably believes that p, and justifiably believes that the best explanation for p is q, then S is justified in believing q.

Might there be epistemic systems other than the one for which these "ordinary, familiar" epistemic principles provide a conception of justification? Perhaps, for example, premodern Christian societies took as fundamental the epistemic principle Revelation:

> (Revelation) For certain propositions p, including propositions about the heavens, believing p is prima facie justified if p is the revealed word of God as claimed by the Bible.

Likewise, the Azande, it would appear, employ a different epistemic principle, Oracle:

> (Oracle) For certain propositions p, believing p is prima facie justified if a Poison Oracle says that p.

The three epistemic systems, modern science, Christianity, and Azande, appear to employ divergent underived epistemic principles, and that might seem to motivate epistemic relativism, a view that Boghossian defines as the conjunction of three claims (2006: 73):

A.   There are no absolute facts about what belief a particular item of information justifies. (Epistemic non-absolutism)
B.   If a person, S's, epistemic judgments are to have any prospect of being true, we must not construe his utterances of the form "E justifies belief B" as expressing the claim *E justifies belief B* but rather as expressing the claim *According to the epistemic system C, that I, S, accept, information E justifies belief B*. (Epistemic relationism).
C.   There are many fundamentally different, genuinely alternative epistemic systems, but no facts by virtue of which one of these systems is more correct than any of the others. (Epistemic pluralism).

Two objections to Epistemic relationism are now countenanced. First, propositions of the form *E justifies belief B* are normative; they make claims about what one should believe given certain evidence, whereas propositions of the form *According to the epistemic system C, E justifies belief B* are purely descriptive, they merely document the logical implications of a given epistemic system (2006: 75). A purely factual remark about what an epistemic system requires has come to replace a normative claim. Second, according to the relativist, the absolute claim *E justifies B* must be false, because justification is never absolute but only relative to

an epistemic system. The objection is that epistemic principles are general normative statements about what beliefs are justified by what sorts of evidence. If, therefore, particular normative statements of this sort express something false, then the epistemic principles too must be false:

> Given that the propositions which make up epistemic systems are just very general propositions about what absolutely justifies what, it makes no sense to insist that we abandon making absolute *particular* judgments about what justifies what while allowing us to *accept* absolute *general* judgments about what justifies what. But that is, in effect, what the epistemic relativist is recommending.
>
> (2006: 87)

Again,

> If we think of epistemic systems as composed of propositions, we will have to think of those propositions as complete, truth-evaluable propositions which encode a particular conception of epistemic justification. And if we do that, we will fail to make sense of epistemic relativism. We will be unable to understand how we could coherently accept the relativist's recommendation that we speak not of what is justified and unjustified, but only of what is justified or unjustified relative to the epistemic systems that we happen to accept. For we will no longer be able to make sense of our acceptance of some of those systems over others.
>
> (2006: 91)

The view I want to defend affirms pluralism but rejects relativism, and I shall thus agree with Boghossian in his arguments against (B). Note, though, his merging two separate claims under the general label "Epistemic relativism". Boghossian's argument against relativisation is an argument only against what he terms "Epistemic relationism" and does not yet speak to Epistemic pluralism (C). Boghossian does present an independent argument against pluralism—which he defines as the claim that there are many fundamentally different, genuinely alternative epistemic systems—but no facts by virtue of which one of these systems is more correct than any of the others. Let us suppose that one epistemic system, C1, employs epistemic principles that imply *if E, B is justified*, while another epistemic system, C2, employs epistemic principles that imply *it is not the case that if E, B is justified*. How can it be, in this circumstance, that there are no facts by virtue of which one system is more correct than the other? Boghossian asks. If there are no absolute facts about justification, then C1 makes a false claim, and C2 claims something true. More generally, if we take any contradictory pair of epistemic systems,

if one of them is deemed to say something false, the other will have been deemed to say something true. Under those circumstances, it's hard to see how it could be right to say that there are no facts by virtue of which one epistemic system could be more correct than any other.

(2006: 91)

Boghossian's target is the thesis he terms Equal Validity: "There are many radically different, yet 'equally valid' ways of knowing the world, with science being just one of them" (2006: 2). His argument is that the very idea of a plurality of epistemic systems, each encoding a particular conception of epistemic justification, is incoherent.

Boghossian, I will claim, mischaracterises the view of an epistemic pluralist. He is wrong to claim that pluralism about epistemic cultures is reducible to a pluralism about epistemic *systems*, as these have been defined by him, namely as sets of general normative propositions that specify under which conditions a particular type of belief is justified. Reflection on the nature of the epistemic pluralism of the Sanskrit knowledge disciplines makes this evident. Indian epistemology in general is an analysis of *pramāṇas*, methods for interrogating reality, sources of warranted belief. A *pramāṇa* is, more or less, what Boghossian means by an epistemic principle. The Indians were perfectly aware of the distinction between generative principles and transmission principles and would have chastised Boghossian for failing to mention an important transmission principle, Testimony:

(Testimony) For certain propositions p, believing p is prima facie justified if heard uttered by a reliable witness who testifies that p.

Their names for Observation, Deduction, Inference to the Best Explanation and Testimony are *pratyakṣa, anumāna, arthāpatti,* and *śabda*. Yet they may have forgiven him, because they also discussed and disagreed among themselves whether Testimony is a fundamental or a derived epistemic principle, and they were, in general, fully cognisant of the importance of establishing a basic set of underived epistemic principles. Other putative epistemic principles, *pramāṇas*, were entertained, and much discussion took place around the question of their status, for example, whether they are derivable from more basic epistemic principles and whether they ought to count as epistemic principles at all. Indian versions of Revelation and Oracle, for instance, were largely dismissed. Yet, the crucially important point is that although the different Sanskrit epistemic cultures disagreed with each other about what the underived epistemic principles are, they agreed that there is just one correct set of such principles. That is, they agreed about there being just one epistemic system, even though they disagreed about what constitutes it. Thus the epistemic

pluralism that the Indian tradition displays cannot correctly be described as a pluralism about epistemic systems, in Boghossian's sense of the term.

3. Stance Pluralism

In fact, the nature of the epistemic pluralism on display has already been analysed for us and by the Sanskrit tradition itself. The remarkable Jaina philosophers make a distinction of fundamental epistemological significance when they say that as well as and in addition to *pramāṇas*, epistemic principles, there are also *nayas*, epistemic *standpoints* or *stances* and that both are essential constituents of an epistemic culture.[3] A *naya* is not a proposition but a practical attitude, a *strategy* or *policy* that guides inquiry: it is an *approach* to the problem of producing knowledge, not a thesis about the sources of justification.[4] One such policy might be to attend only to what is immediately present in experience; another might be to enumerate everything one encounters without making any categorial distinctions, another to attend to stasis rather than flux or vice versa. To see that stances are not propositions, we need only reflect on the epistemic stance adopted by Nāgārjuna, the Buddhist Mādhyamika, who denied that there is any way to say what nature is *in itself* (*svabhāva*). Nāgārjuna was accused of refuting himself, for if his epistemic proposition that everything is thus empty then that proposition should be itself empty, i.e. without meaning *in itself*. His response was that he held no proposition, that emptiness is not a proposition, indeed that it would be a fatal error to mistake adopting emptiness as a philosophical position for belief in any philosophical proposition.[5] And this might remind one immediately of Bas van Fraassen's argument that, as a position in the philosophy of science, empiricism is not a propositional thesis, for it if were then since it claims that every thesis is open to empirical confirmation or disconfirmation it would itself be open to empirical confirmation or disconfirmation (van Fraassen 2002).[6] To put it in Boghossian's terminology, someone who claims that Observation is the only underived epistemic principle would have to regard Observation as itself rationally justified on the basis of observation. van Fraassen's response is to say that

> A philosophical position can consist in a stance (attitude, commitment, approach, a cluster of such—possibly including some propositional attitudes such as beliefs as well). Such a stance can of course be expressed, and may involve or presuppose some beliefs as well, but cannot be simply equated with having beliefs or making assertions about what there is.
>
> (2002: 48)

The idea is helpfully elaborated by Anjan Chakravartty, who says that

> a stance is a strategy, or a combination of strategies, for generating factual beliefs. A stance makes no claim about reality, at least directly,

It is rather a sort of epistemic 'policy' concerning which methodologies should be adopted in the generation of factual beliefs. . . . Stances are not themselves propositional; they are guidelines for ways of acting. One does not believe a stance in the way one believes a fact. Rather one commits to a stance, or adopts it.

(2004: 175)

So, for instance, "physicalism is not so much a factual thesis, but a deference to the claims of basic science". To adopt a stance is to resolve or commit oneself to acting or making decisions as described by it. Stances are open-ended, in terms of how they are interpreted and applied; their application requires discretion and judgement. They express and implement values, much as the policy of not lying implements a positive valuation of the truth (Teller 2004: 166). Let me therefore say that a stance is a policy adopted towards the employment of epistemic principles. Epistemic pluralism is a commitment to pluralism about epistemic stances, not to epistemic systems in the Boghossian sense.

Boghossian's argument against pluralism about epistemic systems, to recall, was that

if one of them is deemed to say something false, the other will have been deemed to say something true. Under those circumstances, it's hard to see how it could be right to say that there are no facts by virtue of which one epistemic system could be more correct than any other.

(2006: 91)

This argument does not apply to epistemic stances, for it is possible for there to be pairs of genuinely alternative epistemic stances and no facts by virtue of which one is more correct than the other. We can see this most clearly if we remember that stances are action-guiding policies governing the application of epistemic principles. One can analogously think of a route as a guide to performing the action of reaching the summit of a mountain: there can be different routes up the mountain, perhaps with different benefits and drawbacks but equally good for reaching the top. Here it is absurd to say that deeming one of the approaches "true" necessitates deeming the other "false", both because truth and falsity are not the norms according to which plans for action are evaluated and because whatever that norm is, both approaches may satisfy it equally well. To give another example: it is often the case that a given mathematical theorem can be proved in two different ways, adopting in each case a different proof strategy, yet both equally "correct", i.e. sound as a proof of the theorem in question.

A fundamental distinction emphasised by the Jainas—and this is their second great theoretical achievement—is a distinction between *inclusive* and *dogmatic* ways of adopting a stance. A stance is adopted inclusively

if its adoption does not prohibit others' use of different stances; a stance is adopted dogmatically if its adoption does prohibit others' use of different stances. Someone assumes a stance dogmatically if they believe that the stance is susceptible to rational support of the kind that makes it uniquely defensible as opposed to its contraries (cf. Teller 2004: 162). It was, claim the Jainas, the great failing of the traditional proponents of the Sanskrit philosophical systems that they invariably took a dogmatic approach to the epistemic stances they articulate. The importance of the distinction is now clear: if we restrict our attention to stances adopted dogmatically, then a version of Boghossian's argument against pluralism about epistemic systems returns, for to adopt an epistemic stance dogmatically is to deem that its prescriptions for the use of the epistemic principles is correct and that any other prescription is faulty.

Siddharṣigaṇi, indeed, argues, in an exact parallel to Boghossian's argument against pluralism about epistemic principles, that the dogmatist claims that whenever a piece of evidence justifies a belief that an object has some one sort of property, e.g. stability, it also justifies a belief that it does not have other, contrary, properties, e.g. transformation. Epistemic stances ought not commit themselves to the second conjunct of this claim but should remain silent on how things go with properties other than the one under investigation, and to that extent they are always *incomplete* ways of interrogating reality. Epistemic principles, on the other hand, are *complete* or absolute in their claims about justification, but they achieve completeness because there is a suppressed quantification over hidden parameters, which can be made explicit by attaching the operator "in a certain sense; somehow" (*syāt*). This is how he explains the Jaina thesis that "this cognitive approach to a particular cognoscible may consist in standpoints (*naya*) and principles (*pramāṇa*). Among these two, a principle should be known to grasp completely, whereas a standpoint should be known to grasp incompletely" (NAV 29.28; Balcerowicz 2001: 124).

Boghossian does consider a related idea, which is that epistemic systems, as he has defined them, are sets of imperatives. He rejects that idea on the grounds that an epistemic system encodes a particular conception of epistemic justification, but a set of imperatives does not, as well as on the ground that it cannot make sense of the relativist's relativisation of justification to systems (2006: 91–93). But neither argument succeeds against Stance Pluralism. For, first, we have agreed that there is a unified epistemic system comprised of a set of epistemic principles (*pramāṇa*) we have defined an epistemic stance as a policy governing the use of that epistemic system, thus a stance does not itself encode a conception of epistemic justification. And second, we have separated out the claim about relativisation and the claim about pluralism, which Boghossian merges in his conjunctive definition of relativism. Having separated these distinct claims, it is evident that epistemic pluralism about stances is compatible with a rejection of relativisation. Indeed, if it were true

that epistemic principles are imperatives then stance pluralism would be impossible, for there cannot be distinct alternative approaches to the dictates of an imperative.

The Jaina distinction between principles and stances is enough to diffuse Boghossian's argument against epistemic pluralism. I have said that distinct stances may sometimes apply with equal correctness to an investigation. The Jainas argue that this does not entail that the distinct deliverances of stances are necessarily contradictory. Rejecting the idea that things have a single unique essence, the Jainas instead say—and this is their third theoretical innovation—that reality is in some sense manifold or multifaceted: the Jaina term is *anekānta*. Metaphysics tends to treat objects, qua targets of inquiry, as if they are simple points, like the peak of a mountain. Yet the mountain itself is metaphysically more complex, its variously shaped sides offering different aspects to the climber and so different potential routes to the top. So, to quote Siddhasena, "the real thing, whose essence is multifaceted (*anekānta*), [forms] the domain of all acts of awareness; an object qualified by one facet (*ekadeśa*) is known as the province of the standpoint (*naya*)" NA 29 (Balcerowicz 2001: 83, modified). Siddharṣigaṇi elaborates, adding that "the real thing, both external and internal, endowed with a form that is under the sway of *multiplex essential natures* not separate from each other, unfolds itself to all epistemic principles (*pramāṇa*)" NAV 29.1 (Balcerowicz 2001: 84). Mountaineers, whichever route they select, have the same tools and techniques available to them, but the mountain unfolds itself differently to each, and each aspect thus presented has as much of a claim to be the essence of the mountain as any other. Likewise, each non-dogmatic epistemic stance is an approach to some one aspect of the world. Different stances are policies for warranting beliefs about different aspects of the world. That is, we might think that there are a plurality of special sciences, each special science having as its provenance some particular domain of properties, no such domain being reducible to any other (this is why it is better to speak of domains of properties and not of levels). To say this is to deny that there is a single way the world is *in itself*, that there is some uniquely objective description of the world viewed *sub species aeternitatis*, from nowhere; rather, the multiplicity of different approaches collectively constitute a "view from everywhere".

I have adopted this suggestion in my work on Sanskrit philosophical accounts of the nature of the self.[7] The stance taken by the Naiyāyikas is that mental states must be owned by a subject, where ownership consists in endorsing the belief, preference, commitment, or aspiration represented in the state. That is, the aspiration, etc., is made one's own. This stance is thus a normative approach to what is at stake in undertaking a first-person position. A quite different stance towards the human subject is taken by the Ābhidharmika Buddhists, whose stance is instead phenomenological. The Buddhist investigation of the first-person position is

conducted with an approach that emphasises the analytical dissection of the phenomenological character of presented mental states, most especially states of attention and attachment. Are these two philosophical approaches in contradiction with each other? That was certainly the story of the intellectual rivalry between Nyāya and Buddhism throughout the first millennium, the result, say the Jainas, of dogmatism on both sides. Yet we may instead take a more nuanced view about the multi-aspectual nature of human subjectivity, and what I have argued is that owning a mental state itself has several aspects, one of which is correctly explored by each of the two supposedly rival philosophical schools. We might agree to say that Buddhists and Naiyāyikas employ different epistemic methodologies, as long as we are clear that this does not consist in the claim that they have rival conceptions of epistemic justification, only that their epistemic policies, approaches, cultures, are distinct. It is just because mental ownership, the foundation of subjectivity, is multi-aspected that there can be different approaches to it, in much the same way that it is just because objects have many properties that there can be different names with different senses for one-and-the-same object.

In summary, Boghossian unpacks the claim "There are many radically different, yet 'equally valid' ways of knowing the world, with science being just one of them" as meaning that there are a plurality of equally correct epistemic systems. I have argued that we should construe the phrase "way of knowing" as referring here, not to epistemic principles (*pramāṇa*) but to epistemic stances (*naya*). Boghossian's argument fails, in other words, because there is an ambiguity in the phrase "way of knowing". Given that Boghossian is right that there is just one set of underived epistemic principles, something I have claimed philosophers in the Sanskrit cosmopolis would have agreed with, without agreeing what it is, it cannot be the case that epistemic cultures qua ways of knowing the world are what Boghossian calls "epistemic systems".

4. Styles of Enquiry

I have been arguing for the viability of a position that combines epistemic pluralism, correctly understood as stance pluralism, not system pluralism, with realism. I want now to turn to two recent attempts to carve out this same territory. Geoffrey Lloyd borrows the phrase "style of enquiry" from Crombie and Hacking but uses it in a more relaxed sense than they. While Hacking "defined styles first in terms of their bringing new objects into existence, and secondly by their self-authenticating character", thereby creating relativised criteria of truth and falsehood appropriate to an investigation, Lloyd uses the term to "draw attention to the different possible foci of attention of enquiries within a single domain and to the corresponding differences in the manner in which the enquiry will be conducted" (2007: 8, n. 3). Different styles incorporate different

criteria, but ones that "will be complementary to one another in so far as they relate to different aspects of the phenomena in question" (2007: 8, n. 3). Different styles of enquiry

> do not constitute incommensurable systems of belief or para-
> digms . . . rather the notion of differing styles serves to underline the
> importance of evaluating individual theories, concepts, and explana-
> tions in the light of the wider complexes of assumptions that their
> proponents made.
>
> (2004: 78)

So "we need to broaden the scope of what we may mean by a style of enquiry by reflecting on how substantive leading ideas, images, interests, and preoccupations help to create a perspective on the world" (2004: 87). Lloyd provides a clear example in the contrast between the styles of enquiry of Aristotle and the *Huainanzi*. Aristotle looked for *aitiai*, causes or explanations, distinguishing the four types, material, formal, efficient, and final. Lloyd comments that "since explanation has to be of what is general, and in terms of stable forms, it follows that the transient, changing, particular falls out of the frame" (2004: 88). The *Huainanzi*, on the other hand, depends on spotting the associations of things, marked with the use of the word "thus" (*gu*). For example, "Things within the same class mutually move each other: root and twig mutually respond to each other. Thus (*gu*), when the burning-mirror sees the sun, it ignites tinder and produces fire". The style of enquiry here is associative, not deductive. A leading principle is that associations between things govern the transformations they undergo. The focus is on correlations—not essences— and so on transformation rather than on stability. Lloyd concludes that differences in *world-view* can be associated with differences in styles of enquiry, which are "themselves constituted by different perspectives and different leading preoccupations, where there are undeniable influences from the side of culture, of values and of ideologies" (2004: 91). Yet he wants to distance himself from the relativist claim that that there are different *worlds* in play. He wants to "uphold the claim that, despite the differences in their *world-views*, there is still a sense in which Aristotle and the writers of the *Huainanzi* inhabit one and the same *world*". He does this by claiming that the data are, in his particular use of the term, multidimensional:

> the multidimensionality of the explananda allows for different, but
> still related, explanations. It is not that all explanatory schemata,
> all perspectives, are equally justifiable. . . . Rather they were often
> the subject of considerable controversy [where] often what was in
> dispute included more fundamental, strategic, issues, the question of
> the kind of account to be attempted, or a vision of the world with

> potential implications for an understanding of the place of humans in it, for human conduct and for ethics.

Again,

> the notion of the multidimensionality of the phenomena allows for different accounts to be given of different aspects or dimensions of a single domain of investiganda . . . [and] reflect objective features of the investiganda that may be the focus of attention of different modes of enquiry.
>
> (2007: 8, n. 2)

The multidimensionality of the data follows, he argues, from the widely accepted theory-ladenness of observation statements. As he has summarised his position most recently (2015: 5; cf. 2017), "recognizing that reality is multidimensional allows for a plurality of accounts, each dealing with a different aspect or dimension of the subject-matter".

All this seems to me closely to parallel what the Jaina thinkers said about the epistemic pluralism of the classical Sanskrit intellectual world. Lloyd distances his notion of a "style of enquiry" from that of Crombie and Hacking, and it seems fairly evident that the move he wishes to make is one away from thinking of a style of enquiry as a relativised truth-criterion and towards conceiving it as an epistemic stance, a policy in the guidance of inquiry in which values, preoccupations, and perspectives play a part, something "constituted by different perspectives and different leading preoccupations, where there are undeniable influences from the side of culture, of values and of ideologies". That is, Lloyd's "styles of enquiry" simply are the Jaina *nayas*. In his claim that the *explananda* are multidimensional, he echoes also the third move the Jainas make, their claim that reality, though one, is multi-aspectual, *anekānta* and that different aspects of this single reality may be the focus of different styles of enquiry. It is remarkable that the model of epistemic pluralism which the Jainas develop after observing the actual epistemic multiplicity of their lived world so closely converges with the model Lloyd arrives at through an imaginary meeting of the worlds of ancient Greece and China, in the context of contemporary battles between social constructivism and scientific universalism. The lessons are ones of pluralism and realism: a single, multi-aspectual world made available through a plurality of perspectival policies of inquiry.

5. Nature "as it is in itself"?

Hubert Dreyfus and Charles Taylor, in a recent co-authored book entitled *Retrieving Realism*, are also in search of the elusive middle ground. "There are", they say,

two powerful positions being defended today—let us call them modern scientism on the one hand, and different brands of subjectivism and relativism on the other. . . . For scientism, any questioning of the unique truth of modern science must be equivalent to a rejection of truth itself as a category; for Rorty and others, the only way to escape the imperialism of modern science is precisely to question this category. The line we are taking upsets this picture, by introducing a third possibility.

(2015: 154)

This third possibility is what they designate "pluralistic robust realism". According to this view,

> There may be (1) multiple ways of interrogating reality (that's the "plural" part), which nevertheless (2) reveal truths independent of us, that is truths that require us to revise and adjust our thinking to grasp them (and that's the robust realist part), and where (3) all attempts fail to bring the different ways of interrogating reality into a single mode of questioning that yields a unified picture or theory (so they stay plural).
>
> (2015: 154)

The second clause rejects a relativisation of the truth-predicate and with it the idea that "worlds" are social constructs. But is this a pluralism about epistemic principles or a pluralism about epistemic stances? The phrase "way of interrogating reality", just like "way of knowing the world" is prone to ambiguity. Let us discover how they intend the phrase to be understood by reconstructing their argument for plural realism. The argument is, roughly, as follows. Different epistemic cultures have given different answers to the question "What is the essence of a thing?" "In the seventeenth century our culture asked", they say, using the first-person plural to aggregate common strands of European thought, "about the structure of the universe as it is in itself independent of all human interpretation and eventually developed a science that claims to be approaching a view from nowhere" (2015: 148). All the currently available evidence is that, gold, for example, is a natural kind "and its essential property of having atomic number of 79 explains all its other properties that can figure in causal laws" (2015: 151). Yet,

> that these causal properties are important to us is only our contingent mode of access to it, so that its atomic number may well correspond to the structure of gold *as it is in itself*. Still, having an atomic number of 79 need not be considered to be the essential property of gold. It is essential only relative to our way of questioning nature so as to reveal its independent properties.
>
> (2015: 151)

For the ancient Egyptians, on the other hand, the essential property of gold is the sacred property of shining with divine radiance, and this may only be accessible to Egyptian religious practices. Therefore, and this is the crux of the view,

> the kind of correspondence claim implicit in the practices of premodern cultures, if spelled out, would then amount to the claim that they have practices for gaining *a perspective* on reality that corresponds to *one aspect of reality* without claiming to have *a view from nowhere* that reveals objective reality as it is in itself. The aspect such practices *revealed* might have causal properties that could only be activated by those specific practices, and so would not be discoverable by a disenchanted science with a view from nowhere.
>
> (2015: 152)

Dreyfus and Taylor conclude that

> although according to our disenchanted science it is true everywhere, whether or not anyone knows it or cares about it, that gold has an atomic number of 79 since this property explains all the causal properties our science can see, it is only relative to our disenchanted way of questioning natural events that having an atomic weight of 79 is taken to be the essential property of gold. More generally, there is no single essential property of gold. Given the above considerations, where essences are concerned one has to be a pluralist.
>
> (2015: 153)

From all this it is clear that Dreyfus and Taylor do not regard "ways of interrogating reality" as epistemic principles, general normative propositions that encode a conception of justification. They consider them to be embedded cultural practices that provide a mode of access to some portion of reality, practices that encode values and goals, such as, in the case of Western science, the value of discovering what things are in themselves as viewed from nowhere and, in the case of ancient Egypt, a value inherited from Egyptian religious practices. A "way of interrogating reality" is a perspectival practice concerning the proper way to set about accessing reality, not a proposition about a source of justification. Dreyfus and Taylor strikingly combine this thought with the thought we have seen expressed in different ways by both the Jaina theorists of Sanskrit intellectual pluralism and by the comparativist of ancient worlds, Geoffrey Lloyd, the thought that reality is *anekānta*, many-faceted, multidimensional, multi-aspectual. They formulate this thought by saying that epistemic practices gain a perspective on reality that corresponds to one aspect of reality and more sharply, that what a thing essentially is relative to a culture's practices. This relativisation

of essence to practice should not be mistaken for a relativisation of truth to practice, which makes practice into a way of world-making (as in Goodman or Hacking); rather the multi-facetedness of reality is a pluralism about essences (cf. NAV 29.1, quoted earlier). The view is robustly realist, while denying the claim of scientific realism that there is only one way the universe is carved up, the way described from the view from nowhere. The claim is simply, and this was the very point made by the Jainas, that distinct epistemic cultures have the capacity to reveal different aspects of a single reality, to access different orders of causal power.

Taylor and Dreyfus conclude by cautioning that the unification of perspectives may be only a regulative ideal in epistemic practice:

> We can see on both the scientific and cultural-ethical levels that we have good reasons, moral and intellectual, to press forward and attempt a unification of perspectives, but also good reasons not to be too sanguine about our prospects. It is this predicament to which our robust but plural realism does most justice. This is not by any means a dogmatic belief that no unification is possible, just a healthy suspension of judgment about its ultimate possibility, along with the recognition that further unification is well worth trying.
>
> (2015: 168)

We might eventually build up a complete picture of reality, but such a picture would not be a view from nowhere: it would better be described as a view from everywhere.

6. Modern Science is Itself Epistemically Plural

Karin Cetina has shown, in addition, that it is anyway a mistake to think of modern science as a single way of knowing the world, for the epistemic cultures of different parts of modern science are themselves different from one another. "Epistemic cultures", she says in her seminal study of knowledge societies, are "cultures that create and warrant knowledge, and the premier knowledge institution throughout the world is, still, science" (1999: 1). "The notion of epistemic cultures", she goes on to clarify, "refers to the different practices of creating and warranting knowledge in different domains" (1999: 246). Cetina uses the notion to study differences in "epistemic procedure" in two prominent current sciences, high energy physics and molecular biology, and she finds them to consist in differences

> between the liminal approach to truth in physics and 'blind' variation in molecular biology, or the difference between physics' way of locating data at the intersection between signs, simulations, and

theory and molecular biology's experimental conception of measurement, or the difference between communitarian mechanisms in one case and individuation in the other.

(1999: 246)

To the suggestion that the notion of culture, as operative in the idea of an epistemic culture, is "a particular take on an ensemble of practices and preferences, a take that brings out their characteristics in relation to other such ensembles", she responds by saying that this notion, though popular among anthropologists, should be supplemented by the idea that culture also deals with the symbolic (1999: 247). Cetina powerfully makes use of the idea of an epistemic culture, so understood, to resist the idea that science disenchants the world:

> One the one hand, physicists enchant, you might say, their technical work by resorting to analogies and metaphors in understanding and classifying what they do and how they relate to their objects. On the other hand, they pursue their goals and construe their tasks in a medium of images, indicators, echoes, and projections of referent objects rather than of substrates of them. The empirical, in high energy physics, has been transposed into a reality of technical symbols whose referent objects themselves are unreal or "phantasmic"— these referent objects have always already disappeared, decayed, and been transformed into other objects. . . . Physics operates within and processes this artifactual reality, it moves within a medium of simulations and material 'fictions' according to its own designations. . . . The notion of culture, because of its link with the symbolic, can help in shining the analytic torch on the very real role of the unreal, the nonempirical, the simulated, the reconstructed, and the technologically imagined in knowledge processes.
>
> (1999: 248–249)

Cetina, evidently, is a pluralist about epistemic cultures, but she is not a relativist or social constructivist. Her claim is not that the truths of high energy physics are true for the high energy physicist alone while the truths of molecular biology are true only for molecular biologists, that there is no univocal truth predicate but only a spectrum of relativised "true-fors". Indeed she employs a "notion of ontology and multileveled analysis", which, while rejecting the view that things have an immutable essence, refers instead to "a potentially empirical investigation into the kinds of entities, the forms of being, or the structures of existence in an area", for by not fixing an ontology from the start "one can see the configurations of several ontologies side by side and investigate their relationship" (1999: 253). The distinct knowledge-yielding procedures of

high energy physics and molecular biology carve the world up according to their particular epistemic cultures but not in ways that render comparison and commensuration impossible.

7. Classifying and Evaluating Epistemic Stances

An epistemic stance is a policy governing the employment of the epistemic principles. Other names for an epistemic stance include "epistemic culture", "style of enquiry", "way of interrogating reality", "use of reason", "mode of argumentation". The traditional proponents of the Sanskrit *śāstras* fell into dogmatism in their attitude towards the epistemic stances they articulate. Bracket the dogmatism and what remains is a viable mode of accessing some one aspect of reality. Each of the Sanskrit "knowledge systems" is thus an epistemic *stance* (not an epistemic *system* in Boghossian's use of that term—and that is why the phrase is potentially confusing), practiced in a distinctive way to produce knowledge in a distinctive domain. For example,

> {Nyāya Meta-epistemology} Use the epistemic principles (*pramāṇa*) to produce knowledge about those very principles, with a background commitment to metaphysical realism and a negative hedonic soteriology.
> {Alaṃkāra Poetics} Use the epistemic principles to produce knowledge about poetry, subject to the aesthetic conventions of courtly Sanskrit.

The emptiness of Madhyamaka Buddhism is also, as we have seen, an epistemic stance,

> {Madhyamaka Emptiness} Use the epistemic principles to refute any claim about what something is in itself.

The early Jainas, in their survey of the variety of epistemic stances employed in classical Sanskrit intellectual culture, identified seven distinct types of stance and discussed their application. "There are [the following] standpoints: comprehensive, collective, empirical, direct, grammatical, etymological, and factual", says Umāsvāti (TS 1.33; Tatia 1994). But Siddarṣigaṇi thinks rather that there are indefinitely many: "according to the number, however, [standpoints are] infinite, because the real thing is endowed with infinite properties and because [various] outlooks confined to [one] property of this [real thing] are standpoints. Nevertheless, ancient preceptors taught that there are seven standpoints, by means of assuming seven outlooks that collect together all [possible standpoints]" (NAV 29.12; Balcerowicz 2001: 97).

Geoffrey Lloyd is sensitive to a corresponding pluralism within European intellectual cultures, and in his early pre-comparative work identified in broad outlines two epistemic cultures or "modes of argumentation", which he termed polarity and analogy. The analogical stance questions reality by appeal to resemblances, models, images, and related notions; "analogies apprehend or postulate similarities or connections, often suggesting inferences and extensions of the similarities apprehended" (2015: 3). He has shown in his later comparative investigations that the analogical stance is to be found in many Chinese writers, including those of the *Huainanzi*. My own studies of classical India bear witness to a similar distinction. They have led me to see that there is a fundamental contrast between two styles of reasoning, that of abstract syllogistic and formal deduction and that of particularist, case-based, "blueprint+adaptation" extrapolation. The latter model—whose origins in India lie as much in the ritual reasoning of the Mīmāṃsā exegetes and the jurisprudence of the Dharmaśāstra as in explorations in the science of prediction in the medical treatises and, most especially, in early Nyāya logic—developed into a general theory of ethical and normative reasoning. The basic idea is that an object is inferred to have one, unobserved, property on the grounds that it has another, observed, one. The most distinctive aspect of the schema is the fundamental importance given to the citation of an example, a single case said either to be similar or else dissimilar to the topic at hand. Suppose I want to persuade you that it is about to rain. I might reason as follows: "Look, it is going to rain (*pakṣa*: proposed thesis). For see that large black cloud (*hetu*: sign). Last time you saw a large black cloud like that one (*dṛṣṭānta*: exemplary case), what happened? Well, it's the same now (*upanaya*: application). It is definitely going to rain (*nigamana*: decision)". What does it tell us about the nature of reason when particulars are in this way made to work as exemplary cases? First, that methods of selection and adaptation are implied by the description of the particular. Like a flexible ruler, an exemplary case bends the standard of comparison to fit itself. Second, that the standards are context-sensitive and localised, because of the requirement that proper purpose is preserved, whether that be performing rituals that have their intended effects or making accurate medical or meteorological predictions. This implies that substitutions and comparisons remain close to the prototype, that the spread of the standards of selection and adaptation is localised. In the "blueprint+adaptation" model, the standard is not absolute and universal but localised, sensitive to context and open-textured.

Thus Lloyd's "analogical stance" is the epistemic stance of several strands within ancient India, most explicitly evident in the Ritual sūtras and in the *Nyāya-sūtra*, and I have used the terms "case-based reasoning" or "case-based use of reason" to describe it (Ganeri 2014). The analogical stance is the epistemic stance according to which

{Paradigm} Use Induction liberally, including even from single instances (models, exemplars), and in combination with Inference to the Best Explanation.

This is not a epistemic principle derived from Induction and Inference to the Best Explanation but a distinctive epistemic policy regarding their use. By polarities Lloyd meant

> modes of reasoning that focus on pairs of opposites and use those oppositions as the basis of schemas of argumentation, as when two opposites are held to present mutually exclusive and exhaustive alternatives, and one proceeds from the rejection of one to the confirmation of the other.
>
> (2015: 3)

The polarising stance, in which the epistemic principle Deduction and in particular the law of the excluded middle are prominent, is evident in the work of the great Buddhist logician Dignāga, whose "wheel of reasons" encodes just such a view about argumentation. Dignāga's shift from the analogical stance to the polarising stance has been heralded as marking a defining moment of transformation in the history of Indian philosophy (see Ganeri 2017: 6).

Another epistemic stance, widely employed in India, appeals to visual thinking in mathematics, the use of external visual representations, such as diagrams, graphs, or symbol arrays, whose "epistemic roles include contributions to evidence, proof, discovery, understanding and grasp of concepts" (Giaquinto 2015). The same stance is operative in hermeneutics, when compactly formulated texts are treated as putting on display a certain array of concepts, rather than as presenting explicit narrative argument (Clooney 2017). We might describe the policy of such a stance crudely as follows:

{Visual Thinking} Use Observation, in application to diagrams, graphs, or symbol arrays, instead of Deduction, in the construction of mathematical proofs and hermeneutical understanding.

The stance of scientism, as characterised by Dreyfus and Taylor, is dogmatic because it incorporates the belief that science and science alone explains all modes of being. Dreyfus and Taylor contrast the epistemic stances of post-seventeenth-century European science and ancient Egyptian mythology. They fail to note, and this is precisely what is shown by Karin Cetina's careful contrastive study of the epistemic stances of high energy physics and molecular biology, that what they describe is more a creature of mythology than of fact, that the idea of science as a unified

quest for a view from nowhere is a piece of collective self-depiction rather than an description of actual scientific practice.

> {Scientism} Use the epistemic principles in accordance with scientist mythology.

Alternative epistemic stances, such as Paradigm and Visual Thinking, have no place within the stance of Scientism and are regarded as being incorrect. Yet they too represent modes of accessing aspects of reality. These are stances that do not use the epistemic principles with the intention of viewing the world from nowhere, for they are contextual in application and work through the extrapolation of local standards of comparison, drawing variably upon the individual cognitive capacities of specific viewers, readers, and thinkers.

Dogmatism about the actual practices and modes of production that constituted 19th and early twentieth-century European science combined with a belief in the appropriateness of the use of violence to suppress other stances to constitute the epistemic stance of European colonialism:

> {European Colonialism} Use the epistemic principles in accordance with the conventions of 19th/20th c. European scientific communities, and do so dogmatically, using violence against anyone who disagrees.

While it is not the case that dogmatism per se entails the endorsement of violence, what distinguished European colonialism, in particular, was its belief in the justification of the use of violence against anyone who employs the epistemic principles differently. While Boghossian describes relativism as implying a "fear of knowledge", the hallmark of this colonial stance is "fear of others' knowledge". Sheldon Pollock writes that "when colonialism made the norms of Europe the norms of India the Sanskrit intellectual formation melted like so much snow in the light of a brilliant, pitiless sun" (2001: 24). But, first, they were not the norms *of Europe*, because, I have argued, there is a common set of general normative epistemic principles that constitute a conception of justification, and indeed this was something agreed by the Sanskrit intellectuals as much as by the Europeans. It wasn't the epistemic system of Europe that was made India's by colonialism but its epistemic stance, the policy of imposing its own provincial mode of accessing reality and actively undermining all others using violence instead of argument. Simone Weil, for example, would condemn the intrinsic absurdity evident in children in French Polynesia being made to recite "Our ancestors the Gauls had blond hair and blue eyes" while simultaneously forcibly denied the right to practice their indigenous custom, language, and tradition, forbidden even access to the libraries containing documentation relating to it

(2003: 110). It is the use of violence to enforce dogmatism with respect to an epistemic stance that lends the epistemic injustice of colonialism its distinctive hue.

Epistemic pluralism claims that there can be pairs of genuinely alternative epistemic stances and no facts by virtue of which one is more correct than this other. This isn't necessarily so of every pair, however, and epistemic stances can be evaluated according to norms appropriate to them. Although stances are normatively evaluable, the appropriate norm of evaluation is not truth or falsity. Rather, a stance is "evaluated as being well or ill advised, conducive to certain ends, easy or difficult to administer, and in many other practical respects" (Teller 2004: 166). One path up the mountain may be steeper but shorter, another more scenic, another better served with teashops. So one can order stances, if only partially. There can also be bogus pseudo-stances (*nayābhāsa*), just as there can be bogus pseudo-principles (*pramāṇābhāsa*); for example, the ad hoc policy of being an empiricist on Mondays, a rationalist on Tuesdays, a Mādhyamika on Wednesdays, and so on. Moreover, in the case of policies but not propositions, it makes perfect sense to advocate that one follows one policy (Plan A) unless it fails to deliver any guidance, or is in some other way inappropriate, in which case one follows another (Plan B) and so on. My general policy may be to tell the truth, but I may be fully aware that there are circumstances in which a different policy, lying, is the better policy to adopt. So "policies are generally not rigid in the sense that their recommendations may be overridden by other criteria or policies" (Teller 2004: 166). Thus, the partial ordering among stances is what we might call a "lexical" partial ordering, i.e. ceteris paribus, do A, otherwise do B, otherwise C, etc.

In all these ways, committing oneself to a stance is a matter for rational deliberation. That is because adopting a stance is a commitment, and commitments are undertaken on the basis of reflection about choices and values (Teller 2004: 168). I might argue against {Emptiness} that it is self-defeating (like the approach to climbing a mountain by circumambulating its base). I might argue against {Scientism} that it rests on mythology (as if I could reach the top without having to take any path at all).

My argument against {European Colonialism} is that its dogmatism in denying the validity of alternative stances is underwritten by other aspects of the culture to which it belongs, specifically the endorsement that culture gives to the use of violence over reason to silence alternatives. One way to evaluate a stance, qua action-guiding strategy, is to consider whether its implementation requires or licenses, for instance by virtue of a larger ideology of which it is a part, the use of violence against others. It was indeed Gandhi the philosopher who invoked yet another foundational Jaina idea, the idea of ahimsa or non-violence, in a critique of the epistemology of colonialism. The philosophical function of the notion of

ahimsa is, we can now see, to provide a non-aletheic norm on epistemic stances. Judged according to this norm, the epistemic stance of colonial Europe fares very poorly indeed.

8. Conclusion

The great American educationalist John Dewey called the last lecture he delivered to his graduate students "The Idea of Pluralism" (Dewey 1959: 102). In that lecture Dewey says the following:

> Pluralism is the greatest philosophical idea of our times. How are we going to make the most of the new values we set on variety, difference, and individuality—how are we going to realize their possibilities in every field, and at the same time not sacrifice that plurality to the cooperation we need so much? How can we bring things together as we must without losing sight of plurality?

For Dewey education has to do with the insightful reorganisation of experience. Yet the sources of experience are plural, and the challenge for education is to bring diverse sources of experience into cooperation, without falling into either one of two traps, the very traps more recently described by Taylor and Dreyfus as "modern scientism on the one hand, and different brands of subjectivism and relativism on the other".

I have agreed with arguments against epistemic relativisation and agree also that there is some unique set of underived epistemic principles, whatever they may be. The epistemic pluralism I want to defend is a pluralism not about epistemic systems but about epistemic stances, where a stance is a policy guiding the use of the principles. It does not entail and should not be confused or bundled with social constructivist notions about the relativisation of truth or justification. While possibly there are pairs of genuinely alternative epistemic stances and no facts by virtue of which one is more correct than the other, this isn't necessarily so of every pair, and epistemic stances can be evaluated according to non-aletheic norms appropriate to them and so are partially lexically ordered. A pluralism about epistemic cultures, practices, perspectives, or stances is compatible with the idea that there is a single reality to be explored, a multiaspectual, multidimensional, multiply essenced one. That is the lesson I have learned from my study of India's profound tradition of intellectual pluralism. It is deeply encouraging to me that contemporary thinkers, some through empirical analysis of actual scientific practices, some through cross-cultural historical explorations of the contrasts between ancient Greece and China, and others through a philosophical wish to escape the horns of the oscillation between scientism and subjectivism, have begun to converge on some version of exactly the solution first touted by the Jainas of India, namely that epistemic cultures are practical

policies to be adopted, not sets of propositions to be believed, and that reality is manifold so that no one epistemic culture can claim privileged access to nature as it is in itself.

Notes

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1. I would like to thank the following for their feedback on earlier versions of this chapter: Miranda Fricker, Duncan Pritchard, Paul Boghossian, Annalisa Coliva, Karine Chemla, Mizumoto Masaharu, Bana Bashour, Monika Kirloskar-Steinbach, and Stephen Stich. I have presented some of the ideas in workshops at CNRS Paris, APU Bangalore, JAIST Kanazawa, and UC Irvine and thank all the audiences for their comments.
2. The correct formulation of this "ordinary, familiar" principle is in fact far from straightforward, particularly in the context of cognitive penetration. For recent discussion see Pryor 2000; Siegel 2012.
3. Umāsvāti, TS 1.6 (Tatia 1994); Siddharṣigaṇi, NAV 29.28 (Balcerowicz 2001: 124).
4. "Among these, the [general] definition is as follows: "The reflection of one facet of an object recognised by a *pramāṇa* is the standpoint,' because this [general definition] pertains to all particular standpoints and because it is capable of distinguishing [among standpoints of] different forms" NAV 29.12 (Balcerowicz 2001: 97).
5. Nāgārjuna, VV 29 (Bhattacharya et al. 1978: 113).
6. See Doctor 2014.
7. Ganeri 2012. Compare NA 31; TS 5.29.

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2 Knowing How and Two Knowledge Verbs in Japanese

Masaharu Mizumoto, Shun Tsugita, and Yu Izumi

1. Knowledge-How: Background

A countless number of different actions are performed every day, such as swimming, skiing, playing the piano, playing chess, and so on. We sometimes perform (and sometimes fail to perform) these actions skillfully, cleverly, rationally, or carefully. Philosophers use "intelligent" as an umbrella term to cover all these positive characterizations of actions. *Knowledge-how* is taken as the intelligence in such intelligent actions, such that an agent acts intelligently when the action is guided by knowledge-how. Thus, knowing how differentiates actions that are intelligent from those that aren't.

There are mainly two opposing views in philosophy concerning the nature of knowledge-how. Intellectualism holds that knowing how is a species of propositional knowledge. On the other hand, anti-intellectualism holds that knowing how is distinct from propositional knowledge. Put in positive terms, anti-intellectualism is the view that knowing how to φ is a certain kind of ability or disposition to φ intelligently. Since Gilbert Ryle's classical presentation of the issue (Ryle 1946, 1949), the majority of philosophers have been leaning toward anti-intellectualism, in the sense that they acknowledge a considerable degree of independence between knowing how and propositional knowledge.

In their seminal paper, Jason Stanley and Timothy Williamson attempted to rehabilitate intellectualism (Stanley and Williamson 2001). They argue that the standard semantic analysis of English knowing how constructions ("S knows how to F") motivates intellectualism. For example, Stanley and Williamson (hereafter S&W) analyze the knowing how ascription "Hannah knows how to ride a bicycle" in the relevant context as being true if and only if,

> for some contextually relevant way w which is a way for Hannah to ride a bicycle, Hannah knows that w is a way for her to ride a bicycle,

(S&W p. 426)

where the ascribed knowledge is conceived under what they call a *practical mode of presentation*. If their analysis is on the right track, it seems to vindicate intellectualism.

However, since S&W's analysis addresses just one particular language, for it to generalize to other languages, cross-linguistic research is necessary. After the publication of Stanley and Williamson (2001), many authors including Stanley himself have acknowledged the need for examining cross-linguistic data. They surveyed various languages other than English in the light of S&W's analysis: the list includes French (Rumfitt 2003; Stanley 2011a, 2011b), German and Russian (Wiggins 2012; Ditter 2016), Turkish (Ditter 2016), Modern Greek (Douskos 2013), Defaka, Finnish, German, and Russian (Stanley 2011a, chap. 6), as well as Afrikaans and Cantonese (Stanley 2011b). However, according to Stanley (2011a), despite the surface-level variation, there is no substantial semantic difference regarding knowledge-how ascriptions across different languages.

Against the background of such cross-linguistic studies, we have conducted multiple studies on knowing how sentences (sentences containing a knowing how construction) in Japanese. In an earlier paper (Tsugita, Izumi, and Mizumoto, *forthcoming*, hereafter TIM), we reported as one of the studies, a felicity judgment survey involving both English and Japanese speakers, the results of which suggest that knowledge-how for Japanese speakers does not require the relevant ability as it does for English speakers. Therefore, TIM took the data as suggesting that English knowledge-how (knowledge-how captured by the English knowing how construction) typically accompanies the relevant ability of the agent, whereas Japanese knowledge-how typically accompanies the agent's *deontic* knowledge, or knowledge about how one *ought* to do the relevant action.[1] That is, *pace* Stanley, there is a substantial semantic difference regarding knowledge-how ascriptions between the two languages. However, TIM has led to further questions concerning the nature of knowledge-how. There are at least two concerns to be addressed. The first is that, since the questionnaire survey in TIM asked the participants to provide felicity judgments of sentences, the results might only indicate pragmatic differences between the two languages, rather than a semantic difference. Second, one may suspect that the surveys in TIM are based on inaccurate translations of English and Japanese sentences. Thus, further empirical studies are required for putting our thesis in TIM on a firmer ground.

The rest of this chapter is organized as follows: Section 2 briefly recapitulates our earlier study in TIM and then presents two possible objections against our proposal, which stress the need for replicating our earlier results with different experimental designs. In response, sections 3

and 4 provide results of further empirical studies for this purpose. Section 5 discusses the implications of our data with respect to the semantic differences between English and Japanese knowing how constructions. Section 6 explores philosophical implications of our results for the debate over intellectualism versus anti-intellectualism.

2. Knowledge-How in Japanese

English expresses knowledge-how by combining a wh-word ("how") with the "to"-infinitive as follows:

(1) Hannah knows how to swim.

In Japanese, a direct counterpart of (1) looks like (2).

(2) Hanna-wa   doo   oyogu   ka shitte-iru.
     Hannah-TOP   how   swim   Q(uestion) know

The overt structure of (2) is almost the same as that of (1). Note, however, first that the knowing how construction in (2) has no infinitival, that is, including no word corresponding to "to"-infinitive and second, that (2) is not the only form available to ascribing knowledge-how in Japanese. For more linguistic details, see Izumi et al. (2019, hereafter ITM).

In our earlier work (ITM), we identified four different types of knowing how constructions in Japanese. (2) is Type-(i), which contains an embedded question just like the English knowing how construction (where "doo" is used as "how" in questions like "How do you use it?"). On the other hand, the following—what we call Type-(iv) construction— is structurally different from the English counterpart.

(3) Hanna-wa oyogi-kata-wo   shitte-iru.
     Hannah-TOP swim-way-ACC   know

(3) explicitly mentions a "method" or "way" of swimming ("kata") and may be seen as amenable to the S&W analysis of "know how," which involves quantification over ways of φ-ing. Despite these structural differences, we did not find in TIM a significant difference between the felicity judgments of Type-(i) and Type-(iv) sentences.

To turn to the semantic aspect of knowing how constructions, English knowing how is commonly assumed to entail the relevant ability. There are, of course, instances of knowledge-how ascriptions without the entailments of relevant abilities. For example, a master pianist who lost both of her arms can be said to know how to play the piano, although she

is unable to do so. This is a flagship example for intellectualists to show that knowledge-how is not a species of *ability* (Stanley and Williamson 2001: 416). However, even if intellectualists were correct in this respect, the cases such as this would remain atypical instances of knowledge-how. Furthermore, even intellectualists would admit that an example like the following sounds very odd:

(4) I know how to swim, even though I cannot swim.

Thus, even without appealing to the entailment from knowledge-how to ability, we may instead propose the following principle to explain the infelicity of (4): Under the default reading of "know how," necessarily, if S knows how to φ, S is able to φ. Even for intellectualists, the English knowing how construction implements such a principle, since "to"-infinitive is associated with an ability or dispositional modal that is slightly different from that of "can" or "be able to" (Stanley and Williamson 2001: 424; Stanley 2011a: 114).[2]

In Japanese, on the other hand, ascribing knowledge-how while denying the relevant ability sounds by far less odd. (5) is a straightforward translation of (4) in Japanese.

(5) Watashi-wa   doo oyogu ka shitte-iru.   Oyogenai kedo.
    I-TOP   how swim Q know.   Swim-cannot but.

As a corroboration of this observation, TIM report questionnaire surveys in which we asked both English and Japanese speakers to judge the felicity of the sentences with the relevant knowing how construction in each language. Each of the sentences presented to the participants has the following form: "Since I acquired the relevant information through reading books, hearing from others, etc., I know how to φ, though I can't φ," where φ is replaced by "swim," "move my ear," "spell 'silhouette'," and "solve a puzzle."[3]

Figure 2.1 summarizes the results of the surveys, which show a significant difference between the judgments of the English and Japanese speakers.

As we can see in (1) and (2) in Figure 2.1, the infelicity judgment rates of sentences like "Since I read a book on swimming, I know how to swim, though I can't swim" and "Since I heard from someone, I know how to move my ears, though I still can't move them yet" were significantly lower for the Japanese participants than those for the English participants, with *large* effect sizes (for example, on the swimming sentence, the effect sizes of the difference between English "know how" and Japanese Type-(i) knowing how construction, $\omega = 0.57$ and between "know how" and Type-(iv) construction, $\omega = 0.64$).[4] These results indicate that,

Main results: Infelicity judgments about knowledge-how lacking ability
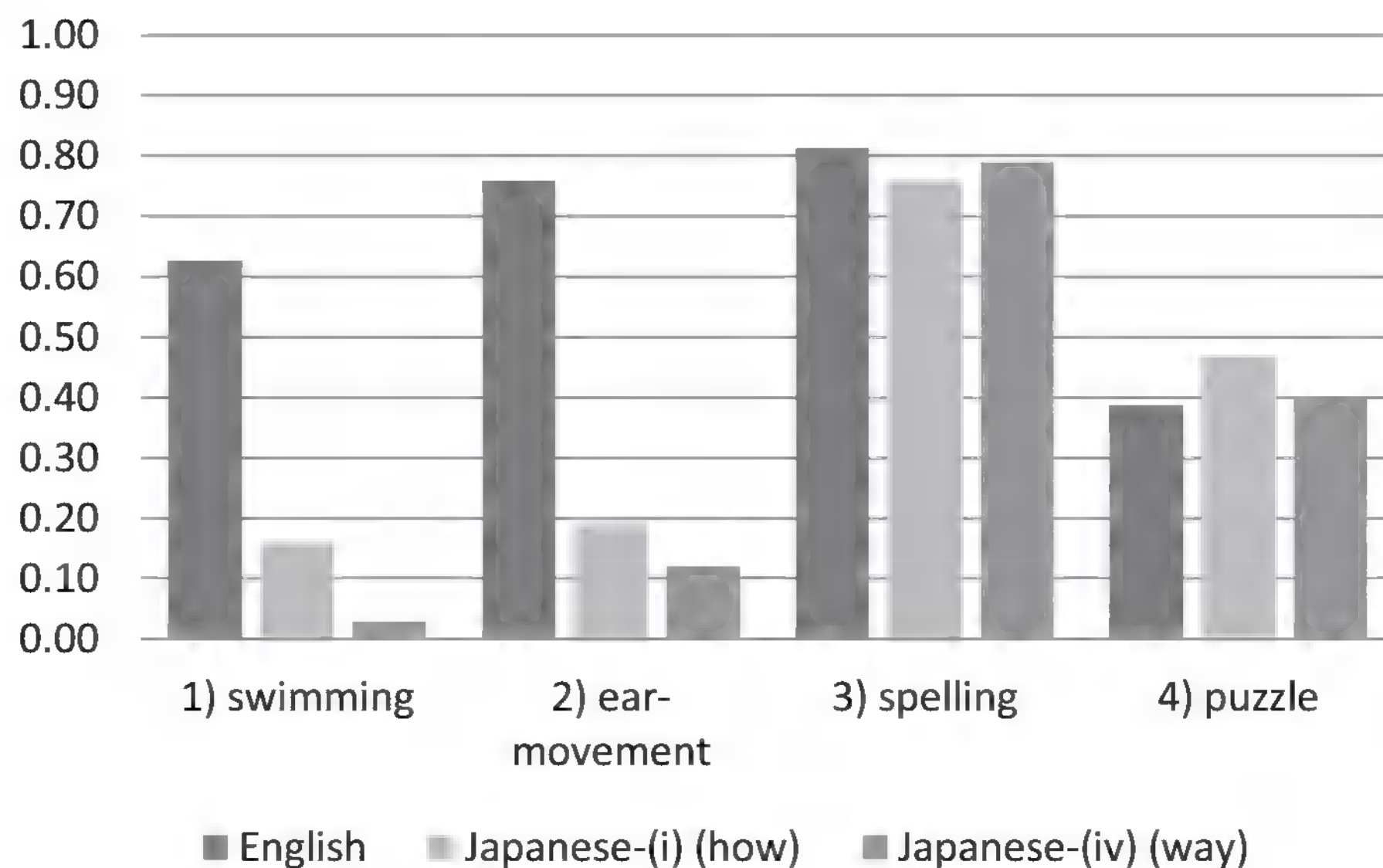

Figure 2.1   Results of TIM

even though English "know how" sometimes has a deontic reading too, its default reading still implies ability, and the alternative reading was not evoked even when the qualification like "Since I read a book on swimming" was added. On the other hand, unlike English, a Japanese knowing how ascription (at least the default reading of its knowing how construction) does not imply the relevant ability of the subject when it is a *physical* ability such as swimming and moving one's ear. Thus, TIM presented a semantic hypothesis that English "know how" most naturally introduces an ability or disposition reading, whereas the Japanese counterparts introduce a deontic reading.

In order to follow up the results of TIM, we would like to address two further questions to advance this line of cross-linguistic research. First, we interpreted the main results of TIM as showing that there is a *semantic* difference between English and Japanese knowing how sentences. However, the semantic interpretation is not the only possible interpretation. Since the previous surveys asked the participants to provide *felicity* judgments, one may suspect that the Japanese participants answered merely based on the grammaticality of the given sentences and ignored any possible semantic oddity. If so, the results of the survey would be too weak to support our semantic hypothesis. One possible pragmatic scenario that could explain the contrast between the English and Japanese speakers in the swimming and ear-moving cases is that the Japanese participants found it somewhat impolite and disgraceful to the possible utterer of a sentence to judge the sentence infelicitous or unnatural and gave a charity to it by seeking (perhaps unconsciously) whatever

reason to judge otherwise. Even though the given Japanese sentences were semantically unnatural, they were perfectly grammatical, and so the participants might have accepted them as natural, disregarding the semantic oddity. This particular *pragmatic* account requires a further cultural-psychological explanation for why the English speakers did *not* use the same strategy in answering the questions. At any rate, we need more evidence to adjudicate between the two possible accounts of our finding: the semantic account or the pragmatic one.

The second research question we would like to address is whether the alternative knowledge verb in Japanese is equally different from the English knowledge verb "know." In ITM and TIM, we used the verb "shitte-iru" in the Japanese knowing how construction (as in (2) and (3)), which is the standard Japanese translation of "know." There is, however, another knowledge verb (for propositional knowledge) in Japanese, "wakatte-iru." Both "shitte-iru" and "wakatte-iru" are available in Japanese knowing how and knowing that constructions. Thus, Mizumoto (2018) empirically studied the differences between them and found that "wakatte-iru" is closer to English "know" than "shitte-iru" is, and therefore, "wakatte-iru" may be the more appropriate translation of "know." Mizumoto surveyed the uses of these two knowledge verbs by employing as vignettes a series of familiar cases in epistemology, such as Gettier cases and the Truetemp case. It turned out that there are sometimes radical differences in knowledge ascription rates between the two verbs, and generally "wakatte-iru" is closer to English "know" than "shitte-iru" is with respect to the pattern of (propositional) knowledge ascriptions.

According to Mizumoto, merely possessing relevant information is often enough for the use of "shitte-iru," whereas "wakatte-iru" allows degrees in its appreciation. When a deeper appreciation of the relevant facts was required, the participants were more hesitant to use "wakatte-iru" than "shitte-iru." This suggests that "wakatte-iru" implies a kind of intellectual capacity, which in turn entails various practical abilities of the agent, whereas "shitte-iru" lacks such an implication. Many Anglophone philosophers have argued that knowledge has some important connection with action and ability.[5] However, such arguments are based on their own concept of knowledge, and arguably, the ways in which they understand the concept KNOW are contingent on the usages of the knowledge verb ("know"). Then, one may expect that the questionnaire on Japanese knowing how sentences using "wakatte-iru" in the style of TIM produces a result closer to English data than the questionnaire on those using "shitte-iru." If so, that result would conflict with our thesis in TIM, suggesting that it was based on an inaccurate translation (for "wakatte-iru" must have been used in the correct translation of "know how").

In fact, studies by Mizumoto contained a result of a survey on knowledge-how using both "shitte-iru" and "wakatte-iru" (section 4 of Mizumoto 2018), where the participants (undergraduate students at a Japanese university) were presented with the following scenario,

Puzzle case: Hanako knew how to solve a puzzle, but since it was years ago, she is now unable to solve it,

followed by the question asking whether Hanako now knows (worded either with "shitte-iru" or "wakatte-iru") how to solve the puzzle. The result showed a significant difference between the two verbs with a large effect size, both in the between-subject design (N = 61, p = 0.00074, w = 0.46) and the within-subject design (N = 61, p < 0.0001, w = 0.49). For example, in the latter case, about 77% of the participants judged Hanako to "shitte-iru," while only 27% judged her to "wakatte-iru" concerning how to solve the puzzle (the between-subject result showed the same pattern). The result of the same question (asked in English) using native English speakers as participants (N = 56, recruited through Amazon M-Turk), showed that only one (!) participant (0.018%) ascribed the relevant knowledge-how to the agent. In this scenario, therefore, the knowledge-how ascription with "know" is closer to that with "wakatte-iru" than with "shitte-iru."

This result seems to strengthen the suspicion of the translation error, suggesting that a similar pattern will be observed in our new studies. Knowing how to solve a puzzle is, however, a purely *intellectual* ability or rather a piece of *deontic* knowledge, in contrast with physical abilities like those implied by knowing how to swim, how to ride a bike, etc.—the cases that are typically discussed in the literature. Thus, the result may have been obtained because a deeper appreciation about the description (how one ought to do) is required for "wakatte-iru," while merely possessing (or maintaining) the relevant information (perhaps in the brain) is enough for "shitte-iru." And if we are right in thinking that Japanese knowledge-how is deontic, then in the physical ability cases, we may as well find a large difference in knowledge-how ascriptions between English and Japanese, whether we use "wakatteiru" or not.

At this point, it is unclear whether knowledge-how ascriptions of "wakatte-iru" should still be expected to be similar to those of English "know," or even whether there is a significant difference between "shitte-iru" and "wakatte-iru." Given the large effect size of the difference between "shitte-iru" and "wakatte-iru," the cross-linguistic difference may not be observed between "know" and "wakatte-iru" (just as the puzzle case). On the other hand, it is also possible that the intra-linguistic difference is not so large in the context of a knowledge-how ascription where the agent has the relevant ability.

In order to address these two further questions, we designed studies incorporating the following two policies.

A. In the Japanese survey, we use both "shitte-iru" and "wakatte-iru."
B. Instead of asking the participants to provide the felicity judgments of sentences, we directly ask them to provide judgments on whether the agent in each vignette possesses knowledge-how or not.

A intends to capture the differences between the two types of knowing how constructions using two knowledge verbs in Japanese, and to determine which is (if there is) an appropriate counterpart of the English verb "know." For this purpose, we first conducted the same Japanese survey as TIM, except for using "wakatte-iru" in place of "shitte-iru."

B intends to determine whether the variation in felicity judgments between English and Japanese speakers in TIM is due to a semantic difference between knowing how constructions, which would constitute a difference in the propositional contents of sentences. Thus, as a second study we conducted surveys, by using vignettes, asking participants to affirm or deny the relevant sentences that ascribe knowledge-how to agents in specific situations. If our claim in TIM is correct, then the task of making a judgment about the propositional content of the relevant sentence (which is to judge its truth value given a scenario) would determine (if not conclusively) which of the two hypotheses (the semantic and pragmatic accounts) is correct.

The present studies will make these points clear in each use and context, thereby delineating the contours of knowledge-how in these three knowledge verbs. Two likely outcomes (among others) are,

(1) there will be consistently only small differences between "shitte-iru" and "wakatte-iru," while we will have large differences between Japanese and English, and
(2) there will be large differences between "shitte-iru" and "wakatte-iru," while relatively small differences will be observed between "wakatte-iru" and English "know."

Though there are many details that are dependent on particular cases, the overall results will turn out to be closer to (1), rather than to (2), as we will see later.

3. Study 1: Felicity Judgment for "Wakatte-iru"

As a preliminary survey for testing solely the previous point A, we first conducted the same felicity judgment survey as in TIM with Japanese participants, this time using "wakatte-iru," rather than "shitte-iru." The participants were undergraduate students of Saitama University (N = 66; all native Japanese speakers).

Since we found no significant difference between two different types of Japanese knowing how constructions, here we used only Type-(iv) construction ("way"-type) for the sentences to be used in this (and the next) study.

Results

We report the result of this survey with "wakatte-iru" together with the results of the previous surveys about "know" (N = 75) and "shitte-iru" (way) (N = 75).

Against our expectation, the felicity judgment with "wakatte-iru" was not significantly different from that with "shitte-iru." Even though there was a significant (but only slight) difference between "shitte-iru" and "wakatte-iru" in swimming ($p = 0.045$, Fisher, two-tailed), the logistic regression analysis showed that there was no significant difference in felicity judgments between "shitte-iru" and "wakatte-iru" either about the sentences questioning the compatibility of knowledge-how with lack of ability or about the sentences questioning the compatibility of ability with lack of knowledge-how. That is, the significant difference of the swimming sentence judgments may be a matter of chance. In any case, both rates are very low (lower than or around 0.1), and this intra-linguistic difference is negligibly small compared to the cross-linguistic difference between "know how" and the two knowing how constructions in Japanese.

Compatibility with inability
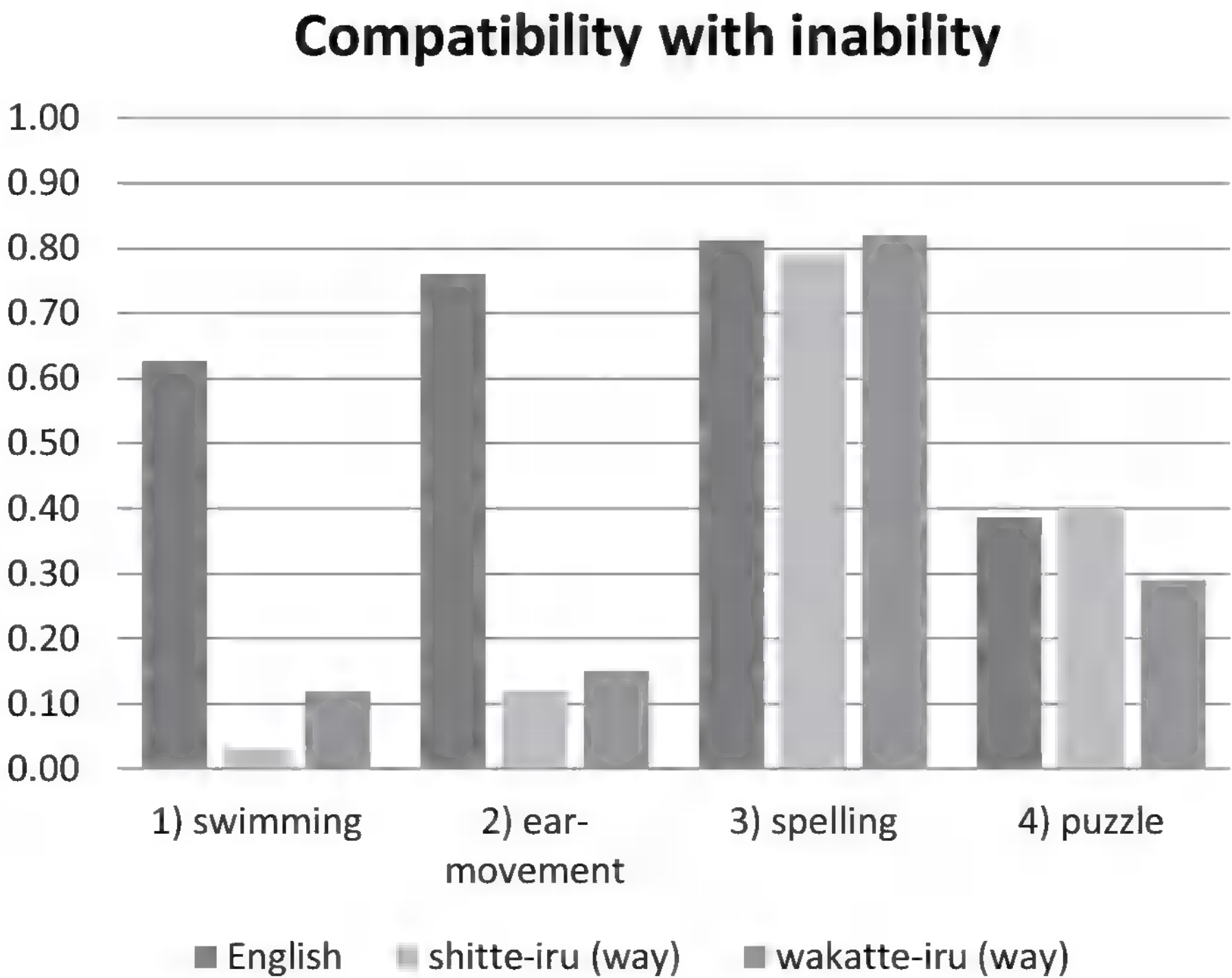
The results clearly support the previous expected outcome (1). This does not mean, however, that there is no epistemologically interesting difference between "shitte-iru" and "wakatte-iru" in knowing how ascriptions, which will be further investigated in the next study.

4. Study 2: Surveys with Vignettes

We then planned, to examine both points A and B above, surveys with vignettes using both English and Japanese participants, where the Japanese participants were divided into "shitte-iru" and "wakatte-iru" groups.

There are two main purposes in this study. The first purpose is replicatory; it is to examine whether we can reproduce the results of TIM at the semantic level, by asking with a vignette whether an agent knows how to do something. The second purpose is exploratory, where we examine the pattern of knowledge-how ascription with various other vignettes changing the conditions of the relevant abilities and facts.

4.1 Method

We recruited 100 participants for each of the English surveys (through Amazon M-Turk) and the two Japanese surveys (through *Lancers*, a Japanese online service that is similar to M-Turk) and asked the participants to judge whether the agent in each vignette has the relevant knowledge-how (the actual vignettes we used for English participants are listed in the Appendix). We divided each group into two further subgroups with different (reversed) orders of vignettes in order to examine or cancel out the possible order effect.

In devising vignettes, we tried to control mainly three parameters: 1) ability, 2) belief about ability, and 3) description (belief) about how one ought to do, where "description" means just the detail of how one ought to perform a particular action. We do not intend to suggest that an agent is consciously aware of a particular description of an action or that such a belief is linguistically represented in the agent's mind. If we are right, for English speakers, the relevant *ability* is necessary for knowledge-how *by default*, while for Japanese speakers, it is not required for knowledge-how. However, if the debate over intellectualism versus anti-intellectualism is about the nature of what makes intelligent actions *intelligent*, it is unclear that *bare ability* can amount to knowledge-how. In particular, we may legitimately wonder whether, when the agent lacks the relevant belief about one's own ability, he or she can be said to know how to do it even when the agent does have the ability to do it. On the other hand, if Japanese knowledge-how is knowledge about a deontic fact, the availability of the description of how one ought to do it, rather than the ability to do it (intelligently), should play a crucial role in Japanese knowing how ascriptions.

Thus, the following vignettes were devised to have different combinations of the presence or absence of these three factors.[6]

1. **Ski Case:** The agent read through a book about how to ski but has not practiced skiing at all.
2. (1) **Karaoke Case 1:** As a result of operation, the agent unknowingly became good at Karaoke, and he has not realized it.
2. (2) **Karaoke Case 2:** Otherwise the same as Karaoke Case 1, but the agent has just realized he somehow became good at Karaoke.
3. (1) **Salchow Case 1:** The agent has the ability to perform the Salchow but has a mistaken belief about how to perform it.

3. (2) **Salchow Case 2:** Otherwise the same as Salchow Case 1, but this time it is made explicit that the agent believes that she can perform the Salchow.

4. **Curveball Case:** The agent has the ability to pitch a curveball but mistakenly believes it to be the ability to throw a slider and thinks he cannot pitch a curveball.

5. **Tennis Case:** The agent is unable to behave in a tennis match, even though he is well aware that his behavior is against manners.

The relation between these vignettes and the aforementioned three parameters is summarized in Table 2.1.

Let us see more closely each of the cases.

Ski Case

This case is meant to reproduce the main result of TIM at the semantic level or at least at the level of the correctness of knowing how ascription rather than at the level of felicity judgments. If the cross-linguistic difference we observed in TIM affects the judgments of the participants in the same direction, English speakers would judge that the relevant agent (Tom) *does not* know how to ski, while Japanese speakers would judge him to *know* how to ski.

Two Karaoke Cases

Karaoke 1 was originally meant to be an analogue of the Truetemp case. Though there seems to be no belief here corresponding to the belief in the Truetemp case, at least intellectualists are committed to the existence of such a belief entailed by knowledge-how (assuming that propositional knowledge entails belief),[7] and since the agent's (Ken's) ability to sing well was produced by an operation intending to make him have such an ability, the corresponding belief (if there is) was produced through a reliable process, thereby being externally justified. Thus, intellectualists may argue against anti-intellectualism that Karaoke 1 will show that merely having an

Table 2.1 Summary of Three Factors

	Ability	*Belief about ability*	*Description (belief about how one ought to do it)*
Ski		✓	✓
Salchow 1	✓	?	△(false but leads to success)
Salchow 2	✓	✓	△(false but leads to success)
Curveball	✓	✓(wrong)	✓
Tennis (1) and (2)	△	△	✓(1: abstract; 2: concrete)
Karaoke 1	✓		
Karaoke 2	✓	✓	

ability is insufficient for knowing how, not because the agent lacks the relevant belief (which can look question-begging) but because the belief lacks a necessary justification (internal or otherwise), appealing to the analogy with the Truetemp case, predicting a low knowing how ascription rate.[8]

On the other hand, Mizumoto (2018) asked Japanese participants whether the agent in the Truetemp case knows or not (with surveys of both between-subject and within-subject designs) and found a large difference between "shitte-iru" and "wakatte-iru": most participants ascribed the agent "wakatte-iru" (as knowledge of the room temperature), while denying the ascription of "shitte-iru" to the agent. The finding shows the opposite pattern of the Puzzle case we saw in section 2. We may then expect a large difference between "shitte-iru" and "wakatte-iru" in knowing how ascriptions, if the analogy with the Truetemp holds. However, if Japanese knowledge-how is knowledge about a deontic fact, since no description of how one ought to sing is available to Ken (except for the Stanley-style implicit descriptive belief we discuss later, possibly in Karaoke 2), we should expect a low ascription rate in both "shitte-iru" and "wakatte-iru" surveys, either in Karaoke 1 or 2.

Prior to this study, we had conducted a small-scale exploratory survey using undergraduate students.[9] In the survey, we used only Karaoke 1 version but found extremely low knowledge ascription rates for both "shitte-iru" and "wakatte-iru": only 3 students out of 24 for "shitte-iru," and only 2 out of 23 answered that Ken knows how to sing well. For fear of the floor effect, where the expected difference would bottom out and flatten, we added, in Karaoke 2, a sentence that explicitly states that Ken realized his own ability to sing well, at the end of Karaoke 1 vignette (though this diverges from the original Truetemp case). We then asked whether Ken knows how to sing well *after* he formed the explicit belief about his own ability. We only used Karaoke 2 for the Japanese surveys, but for comparison we conducted both Karaoke 1 and Karaoke 2 for the English survey.

Two Salchow Cases

Ski Case was meant to show that knowledge-how fails to imply ability in Japanese. We may then also ask whether the converse implication holds or whether (even purely physical) ability implies relevant knowledge-how. In TIM and Study 1, this question was not clearly answered, and no cross-linguistic difference was observed. This direction of implication, however, is predicted to fail at least in Japanese, on the assumption that knowledge-how is deontic knowledge in Japanese. Besides, although it is commonly assumed that this direction of implication holds in English, some intellectualists challenge this assumption. Bengson et al. (2009, hereafter BMW) even provided empirical evidence against the assumption using a vignette in which a skater (Irina) has a mistaken belief about what amounts to a Salchow but also has a neurological abnormality that, unknowingly to her, affects both her movement and her sense of it. As a result of this

abnormality, she always ends up succeeding in jumping a Salchow whenever she tries. Salchow 1 is meant to replicate the result of BMW. But their vignette did not specify whether Irina is aware that she fails to jump the way she intends. Thus, there are two possible interpretations of the vignette.[10]

(1) The skater is aware that her jump is not what she intends (since, e.g. she checked her video, or her mother pointed it out).
(2) The skater is not aware of her failure, and mistakenly believes that she is doing exactly what she intends to do.

In order to disambiguate this point of the original scenario, in Salchow 2 we added at the end of the vignette of Salchow 1, the following passage, intending to elicit the second interpretation.

> One day, a novice skater came to Susan [the protagonist] and asked her to demonstrate how to jump a Salchow. "Salchow is a jump like this," said Susan, and jumped a perfect Salchow.

Note that, in both versions, Susan has an ability to perform a Salchow and has a mistaken deontic belief about how to perform a Salchow, though, in Salchow 2, it is made explicit that Susan believes that she can perform a Salchow (just like Karaoke 2).

Thus, if there is no significant difference in knowing how ascriptions between the two cases, it should be clear that in Salchow 1 people already assumed that Susan believed that she could perform a Salchow. On the other hand, if significantly more people judge that Susan knows how to jump a Salchow in Salchow 2, then that outcome would suggest that the participants of Salchow 1 and therefore the BMW survey had assumed that Susan/Irina was *not* aware of her own ability.

In this connection, according to Stanley's intellectualist analysis of knowledge-how we saw in section 1, knowledge-how requires knowledge (therefore a belief) about the fact that *w is a way to φ*. Though Stanley says that ascriptions of knowing how create *opaque contexts* (Stanley 2011a: 168; see also Williams 2008: 110; Ditter 2016: 512), this is a straightforward case of a false belief about *w* (how to jump a Salchow).[11] Stanley should, therefore, expect that Susan does *not* know how to jump a Salchow either in Salchow 1 or 2. On the other hand, if we are right and knowledge-how is deontic in Japanese, Susan knows how to perform a Salchow for Japanese participants, if she possesses the relevant descriptions about how one ought to jump *even if she mistakenly believes it to be a Salchow*. Unlike Stanley's intellectualism, here a true descriptive belief about the (demonstratively presented) way to jump a Salchow is not required. So, possessing the description, which may be taken as a (correct) *heuristic* for jumping a Salchow, seems to be enough for her knowing how for Japanese speakers. Thus, in the Japanese surveys, high knowing how ascription rates are expected at least in Salchow 2.

Curveball Case

This case also examines the effect of the mistaken belief about *w is a way to φ*. But this time, the agent is mistaken about *φ*, rather than *w* (how to do it), which is a mistake about what one is doing (lacking practical knowledge in Anscombe's sense). Whereas even in Salchow 1 Susan was aware of what she was *trying* to do (Salchow), the agent in the present case is not.

Here, however, although the agent (Sam) lacks the (*de dicto*) belief that he can pitch a curveball (he believes *w* to be a way to throw a *slider*), he does have a belief (belief *de re*) that, for some ability, he possesses it, which is indeed an ability to throw a curveball. Therefore, this case is somewhat different from a familiar case in literature, in which one may unwittingly present Gray's Elegy by semaphore in preforming a dance, even though she doesn't know how to present the Elegy in that way (Carr 1979). In such a case, the individuations of the two abilities are very different (between the whole dance and the Gray's Elegy part of it) so that the agent does not even have a belief *de re* that she can do *that*. On the other hand, Sam does believe that he can throw a breaking ball, which *is* a curveball.

Still, ascribing him the knowledge of how to throw a curveball would amount to ascribing Sam a contradictory belief, that *w* is and is not a way to throw a curveball. Intellectualists, therefore, should expect, just like Salchow 2, that significantly *fewer* English speakers ascribe knowledge-how to Sam than in Karaoke 2. On the other hand, anti-intellectualists should predict that there is no significant difference between this case and Karaoke 2. Similarly, the ascription rates of Japanese speakers should be as high as the Ski case, since knowing how one ought to do it (without identifying it as the way to throw a curveball) is enough for Japanese knowing how.

Tennis Case

The infinitive in the English knowing how construction is considered to typically introduce an ability or dispositional modal. But within certain contexts, we can elicit a deontic reading, as in "John knows how to behave at a party" (Stanley 2011a: 114). If we are right, then, in such contexts English knowing how should show the same pattern of ascription as that of the Japanese knowing how ascriptions.

Tennis Case examines such a purely deontic reading of knowing how constructions. In this case, we presented two questions to the same participants, about a tennis player (Mike) who failed to behave in a tennis match. The questions ask, first, whether Mike knows how to behave in a tennis match in general and, second, whether he knows how to behave in that particular situation. Since Mike fails to behave himself in that particular situation, the second question is more likely to elicit the ability

reading at least for English speakers. If so, the knowing how ascription rate of the second question would be significantly *lower* than that of the first question in the English survey. Otherwise, in both questions the relevant knowledge-how is taken to be about description (how one ought to behave), rather than about the relevant ability (to behave properly).

On the other hand, there should be no difference in Japanese ascription rates between the two questions, and they should be generally high either in the "shitte-iru" survey or in the "wakatte-iru" survey. At the same time, as we saw in section 2 earlier, "wakatte-iru" allows degrees in its appreciation, and when a deeper appreciation of the relevant facts was required, Japanese were hesitant to ascribe it, suggesting that it is a kind of intellectual capacity. If the relevant self-control here requires such a capacity, the ascription rates of "wakatte-iru" (especially in the second question) may be significantly lower than those of "shitte-iru."

4.2 Summary

Since the belief about ability decides the *subjective availability* of the relevant action when necessary, it may be predicted that the lack of belief about the ability has the effect on English speakers' knowing how ascription that is similar to the lack of the ability. If so, the expected order of the knowing how ascription rates in the English survey is:

Karaoke (2) > Curveball, Salchow (2) > Karaoke (1) > Ski

On the other hand, if knowledge-how for Japanese speakers is deontic knowledge, the explicit belief about *how one ought to do it* is crucial for ascribing knowledge-how. The expected order of the knowing how ascription rates according to this criterion is:

Ski, Tennis > Curveball > Salchow (2) > Karaoke (2)

In particular, in the "wakatte-iru" survey, Tennis cases may be lower than Ski.

4.3 Results

After we eliminated answers of those who were not native speakers of English (in the English survey) and Japanese (in both the "shitte-iru" and "wakatte-iru" surveys) and those who have answered both of two Japanese surveys and those who failed to answer demographic questions, we ended up with 88 participants (age M = 32.8, 58 males and 29 females, 1 no answer) for English "know," 98 (age M = 39.8, 59 males and 39 females) for "shitte-iru," and 91 (age M = 37.5, 38 makes and 53 females) for "wakatte-iru." We found no order effect between the two

order groups for each survey, and therefore we only report the sum of two groups.

If we focus on the order of knowledge ascription rate, we obtained results with the orders roughly the same as predicted earlier both in English and Japanese (for the latter, both "shitte-iru" and "wakatte-iru").

For English "know," we had the following results:

Know (N = 88)

Karaoke 2 (N = 46)	70%
Curveball	66%
Slachow 2 (N=46)	70%
Karaoke 1 (N = 42)	40%
Ski	18%
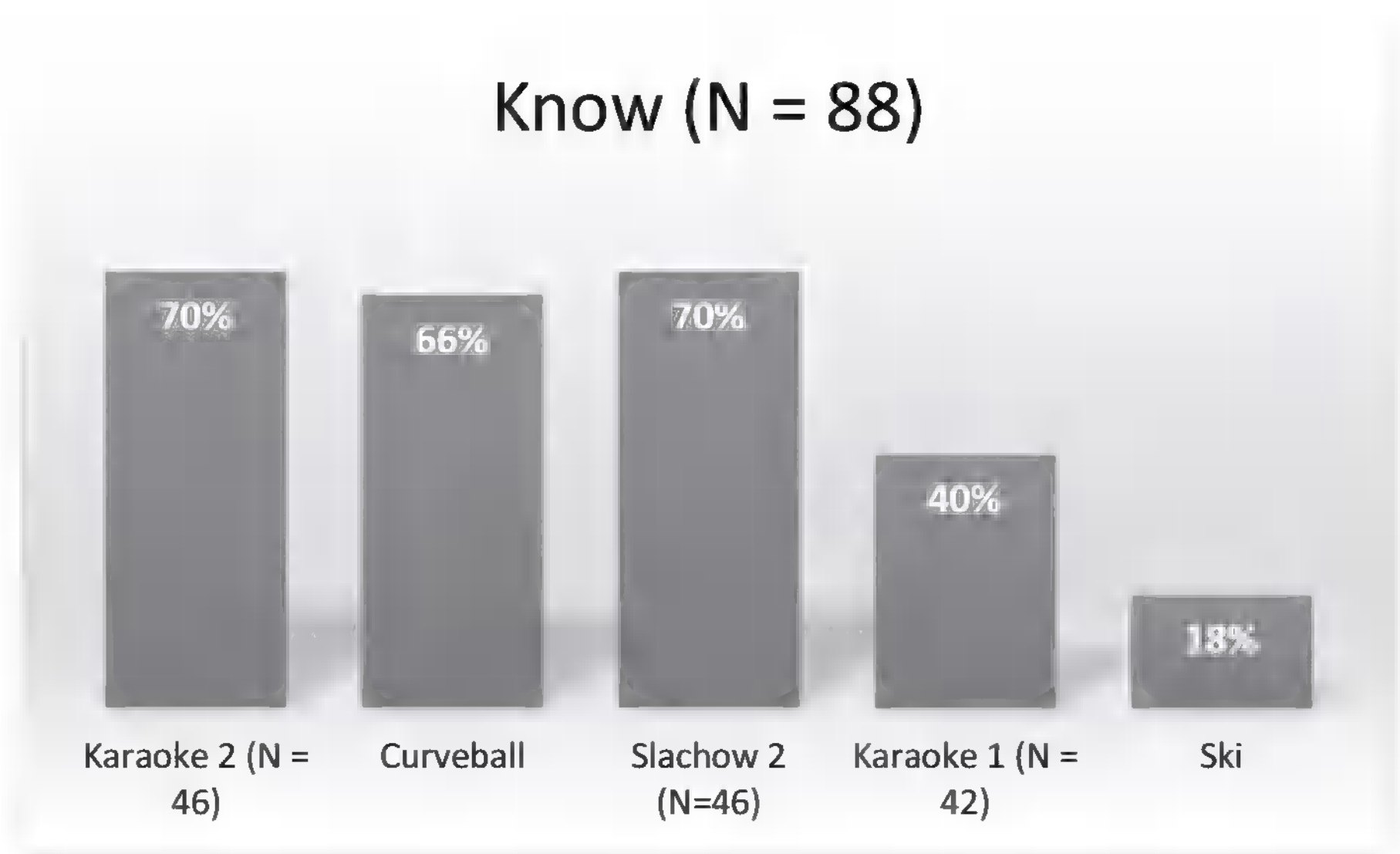
In "shitte-iru" and "wakatte-iru," again the order of the knowledge ascription rates was roughly as predicted as previously.

Shitte-iru (N = 98)

Ski	58%
Tennis 2	68%
Curveball	57%
Slachow 2 (N=49)	53%
Karaoke 2	22%
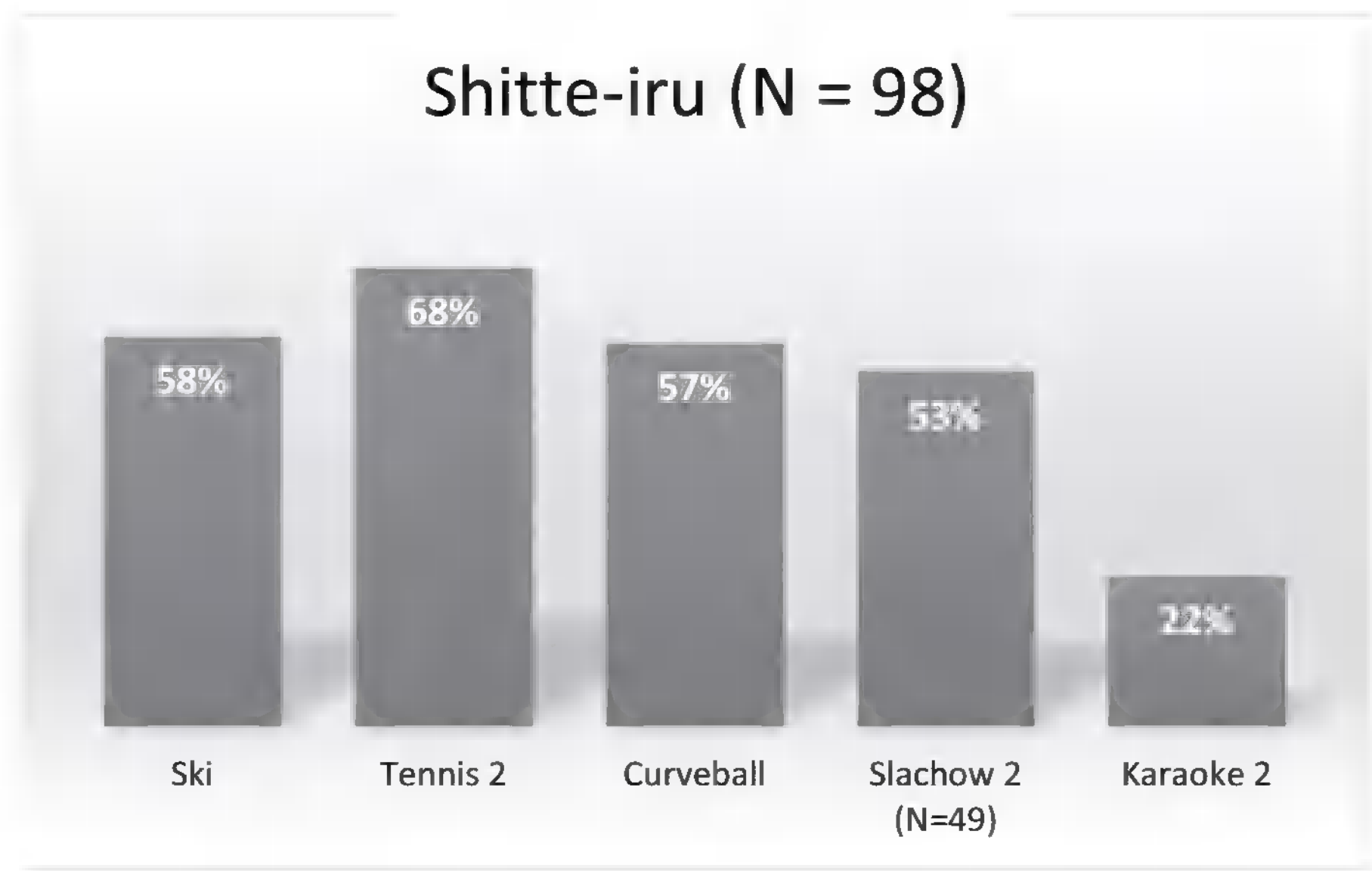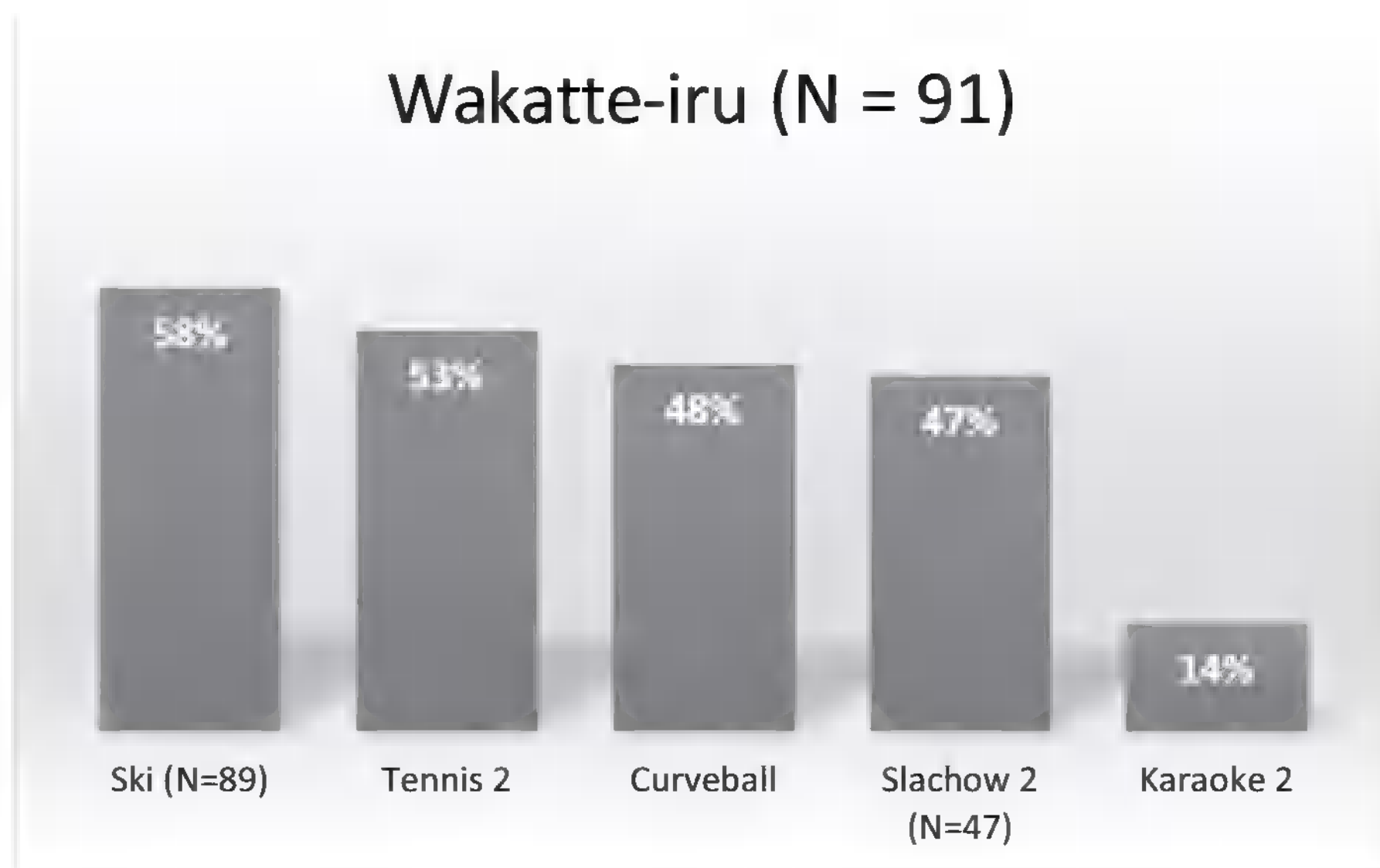
Wakatte-iru (N = 91)

Logistic regression analysis showed that the overall difference of the results between English "know" and "shitte-iru" and the one between "know" and "wakatte-iru" are both significantly different, whereas the overall difference between "shitte-iru" and "wakatte-iru" was not, in the sense that the interaction model between the verb difference and each case (Ski, Curveball, Tennis 1 and 2, Salchow 1 and 2, and Karaoke 2) was a significantly better fit than either the "non interaction" model or the model with each case without the verb factor.[12]

Let us see each of the results of cases one by one, including those that are not listed in the previous figures, juxtaposing the results of three verbs.

4.4 Results and Discussions of Individual Cases

Ski Case

Significantly more English participants rejected knowledge-how ascription (where 95% Confidence Interval was 11%-28%). Although ascription of Japanese knowledge-how slightly failed to be significantly more than chance (95% CI: 48%-67% for "shitte-iru," 47%-67% for "wakatte-iru"), the difference between English and Japanese were relatively large both in "shitte-iru" and "wakatte-iru" (between "shitte-iru" and "know," $p < 0.0001$, $w = 0.41$, between "wakatte-iru" and "know," $p < 0.0001$, $w = 0.40$).

This result robustly supports our hypothesis, reproducing our earlier findings as a *semantic* difference between English and Japanese knowing how. Knowing how in Japanese introduces a deontic reading whether it is

Ski
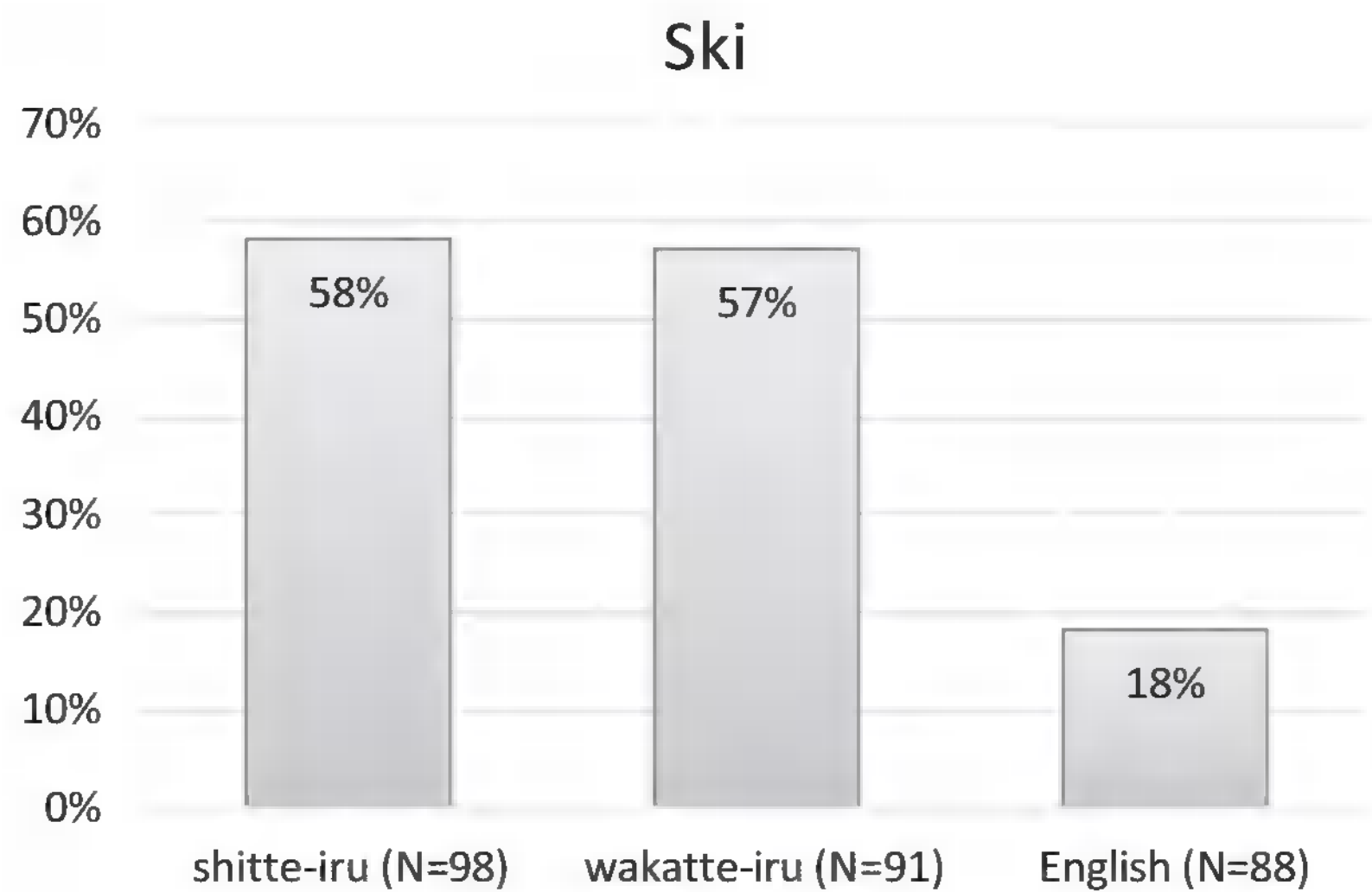
stated in "shitte-iru" or "wakatte-iru." This result then constitutes a significant problem for anti-intellectualism, which claims that knowledge-how is a kind of ability or disposition.

One may think that, to be deontic knowledge, less than 60% of ascription rate is not enough. In Mizumoto, Izumi, and Tsugita (*manuscript*), we conjectured that the last sentence of the vignette, "He is a little anxious, but . . . he's pretty athletic and generally good at sports," gave unnecessary complications to the situation and therefore conducted an independent survey of "know" and "shitte-iru" only for the Ski case with otherwise the same vignette that lacks the last sentence. We found that only 9% of English speakers ascribed knowledge-how to Tom (95% CI: 4%-17%), while 73% of Japanese speakers did so in the "shitte-iru" survey (95% CI: 64%-81%). The effect size of this difference is *huge* (w = 0.64), which further confirms our hypothesis here.

Two Karaoke Cases

For comparison, we report the English result of Karaoke 1 together with the results of the Japanese preliminary survey in which undergraduates participated.

If we compare them, both the difference between "shitte-iru" and "know" and that between "wakatte-iru" and "know" are significant (for the former, p = 0.025, w = 0.29, for the latter, p = 0.0094, w = 0.33).

Karaoke 1 (unaware)
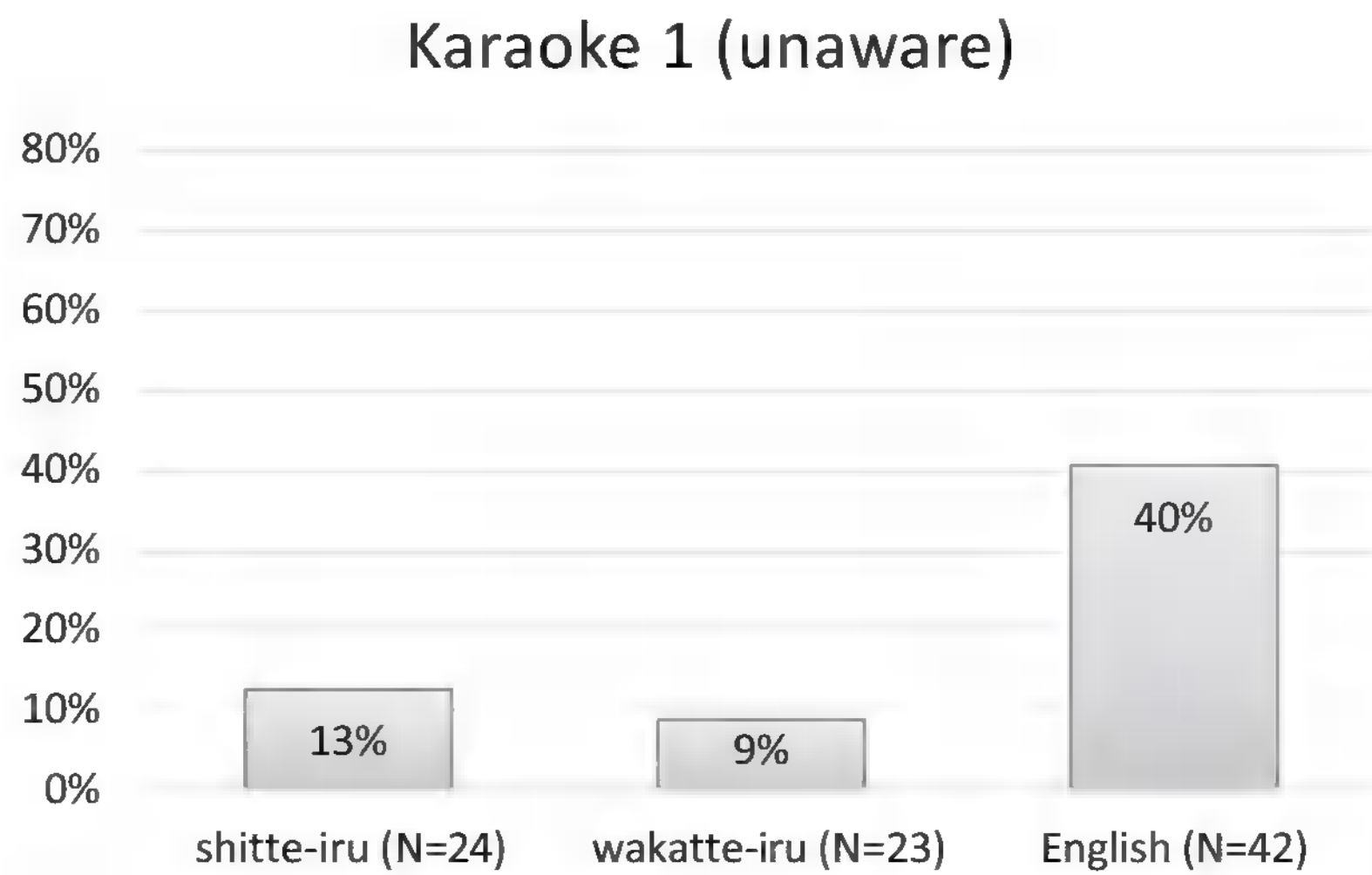
More dramatic difference was found in Karaoke 2. Both in "shitte-iru" (95% CI: 15% to 31%) and "wakatte-iru" (95% CI: 8.4% to 23%), significantly fewer participants ascribed knowledge-how, whereas significantly more people ascribed knowledge-how in English (95% CI: 55% to 81%).

Here, the effect sizes of the differences between "shitte-iru" and "know" and between "wakatte-iru" and "know" are both large (for the former, $p < 0.0001$, $w = 0.45$, for the latter, $p < 0.0001$, $w = 0.56$). Even

Karaoke 2 (aware)
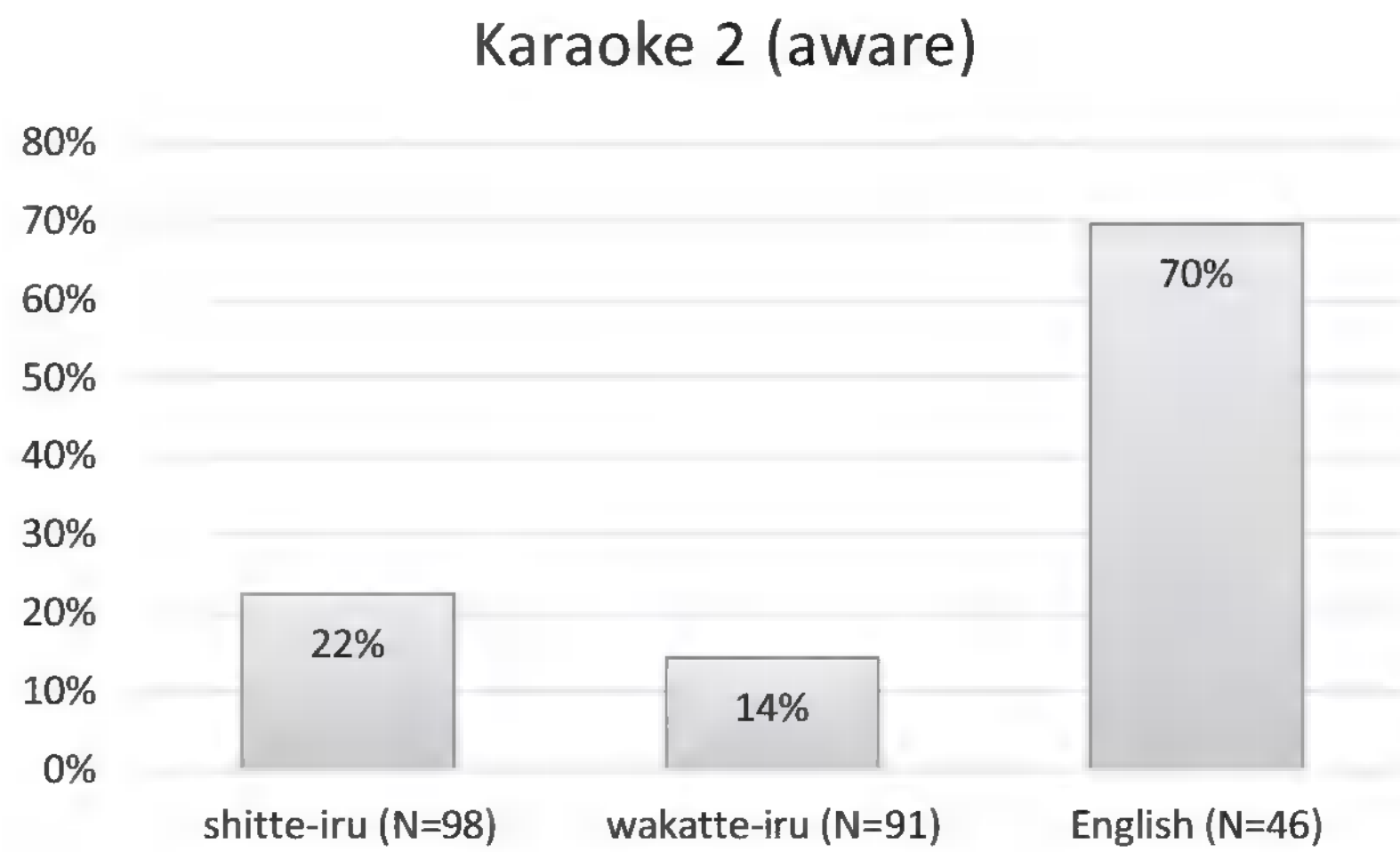
here, there is no significant difference between "shitte-iru" and "wakatte-iru," contrary to the result of the Truetemp case.

The lack of significant difference between them in both of the two Karaoke cases and therefore the disanalogy with the Truetemp case in Japanese data counts *against* intellectualism: propositional knowledge and knowledge-how are different species of knowledge, at least for Japanese speakers.

Salchow Cases

In Salchow 1, our results roughly replicated the survey of BMW, where significantly more people refrained from ascribing knowledge-how to the agent in all three groups (95% CI is 18%-43%, 14%-40%, and 21%-49% for "shitte-iru," "wakatte-iru," and English "know," respectively).
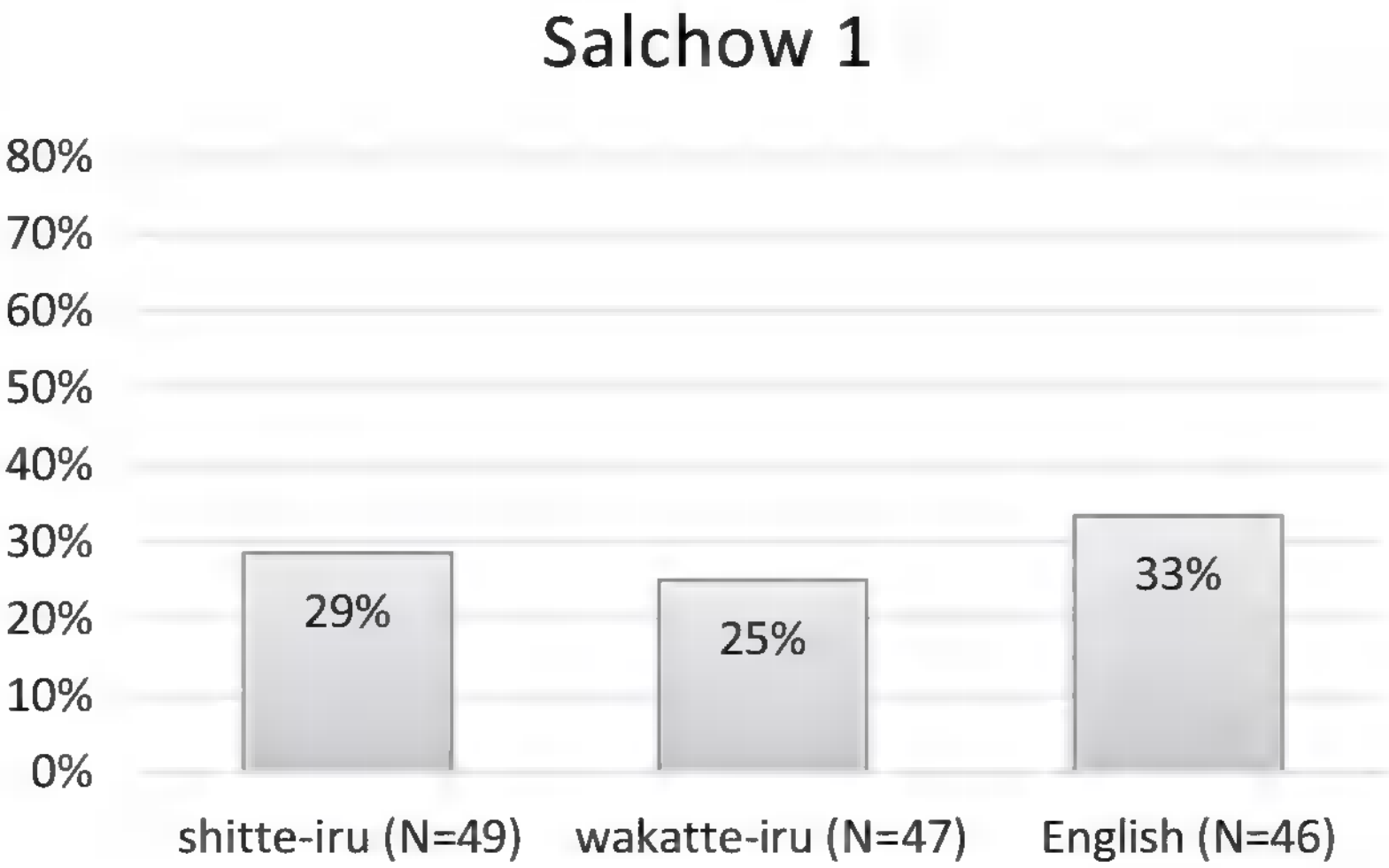
Salchow 1

The responses of participants, especially those of the English participants, were dramatically reversed in Salchow 2. Only in English significantly more participants ascribed knowledge-how (95% CI: 55%-81%).

The difference between "shitte-iru" and "know" was not significant, but "wakatte-iru" and "know" was (p = 0.036, w = 0.23). The increase of knowing how ascription from Salchow 1 was significant in all three groups, but of course the largest effect size was that of English "know" (p = 0.013, w = 0.26 for "shitte-iru" p = 0.043, w = 0.24 for "wakatte-iru," and p = 0.0012, w = 0.36 for "know").
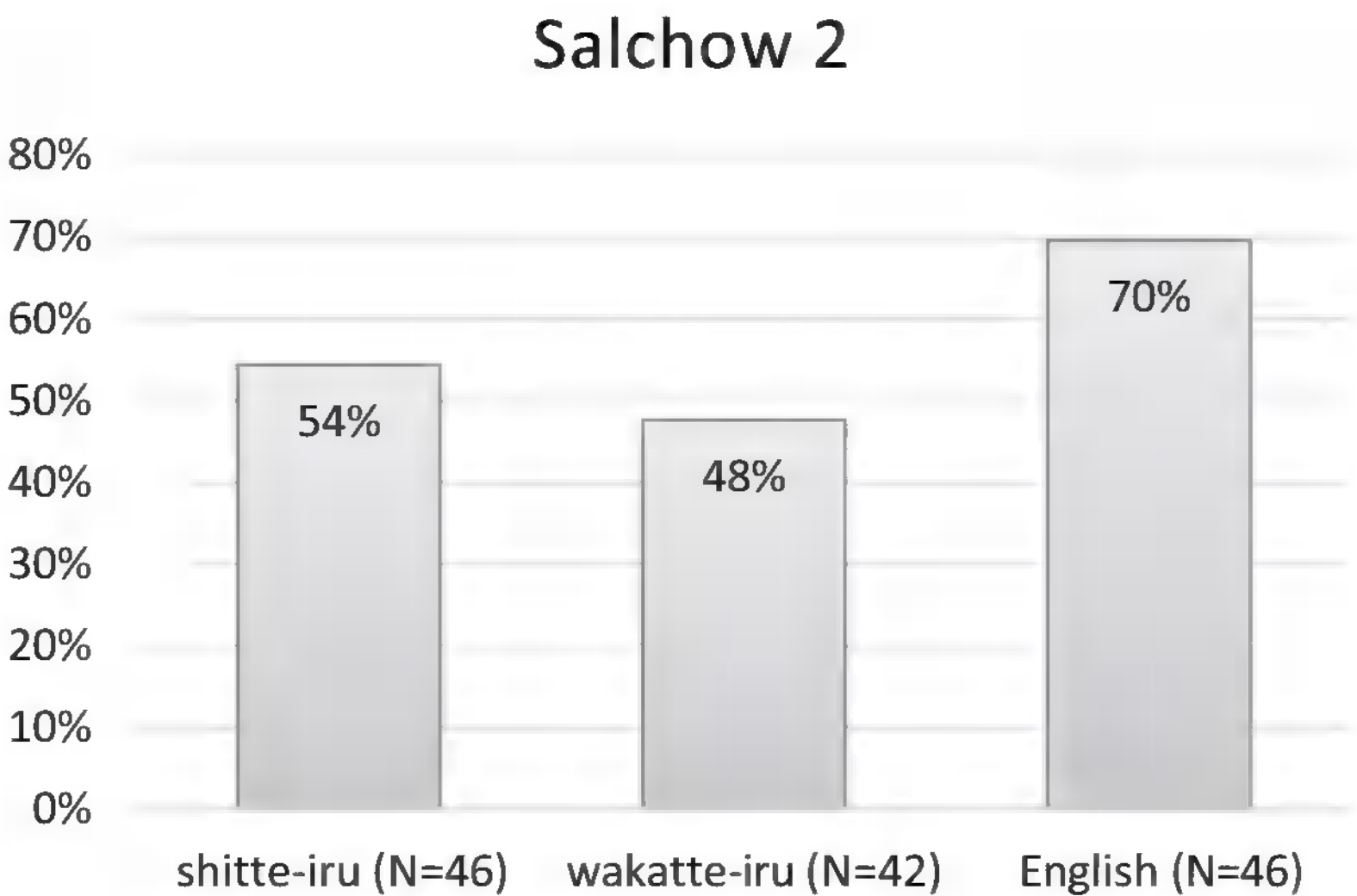
Salchow 2

This significant increase strongly suggests that participants of the Salchow 1 case mostly took the agent to be unaware of her successful performance and therefore her own ability to jump a Salchow, against the assumption of BMW. Also, the high ascription rate of the English Salchow case 2 counts strongly against intellectualism. Moreover, even in Japanese Salchow 2, about a half of the participants allowed the wrong description to be knowledge-how, against Stanley's intellectualist analysis. This may be because Susan is both subjectively and objectively succeeding in performing the Salchow there, using it as a *heuristic*. On the other hand, in Salchow 1, she subjectively fails to follow the description of how one ought to jump, while that description is mistaken. So it is not functioning even as a heuristic there, which accounts for the low ascription rates of the Japanese surveys.

Curveball Case

Just as Salchow 2, only in the English survey significantly more participants ascribed knowledge-how (95% CI: 56%-75%).

Again, just as Salchow 2, the difference between "shitte-iru" and "know" was not significant, but "wakatte-iru" and "know" was significant (p = 0.023, w = 0.18). Thus, the pattern shown here is almost the same as that of Salchow 2. In particular, the falsity of the belief about what one is doing did not affect the judgment of English participants at all. This counts strongly against the intellectualist analysis of Stanley. Moreover, for about a half of Japanese participants, again, the relevant (correct) description is enough for having the relevant knowledge-how,

Curveball
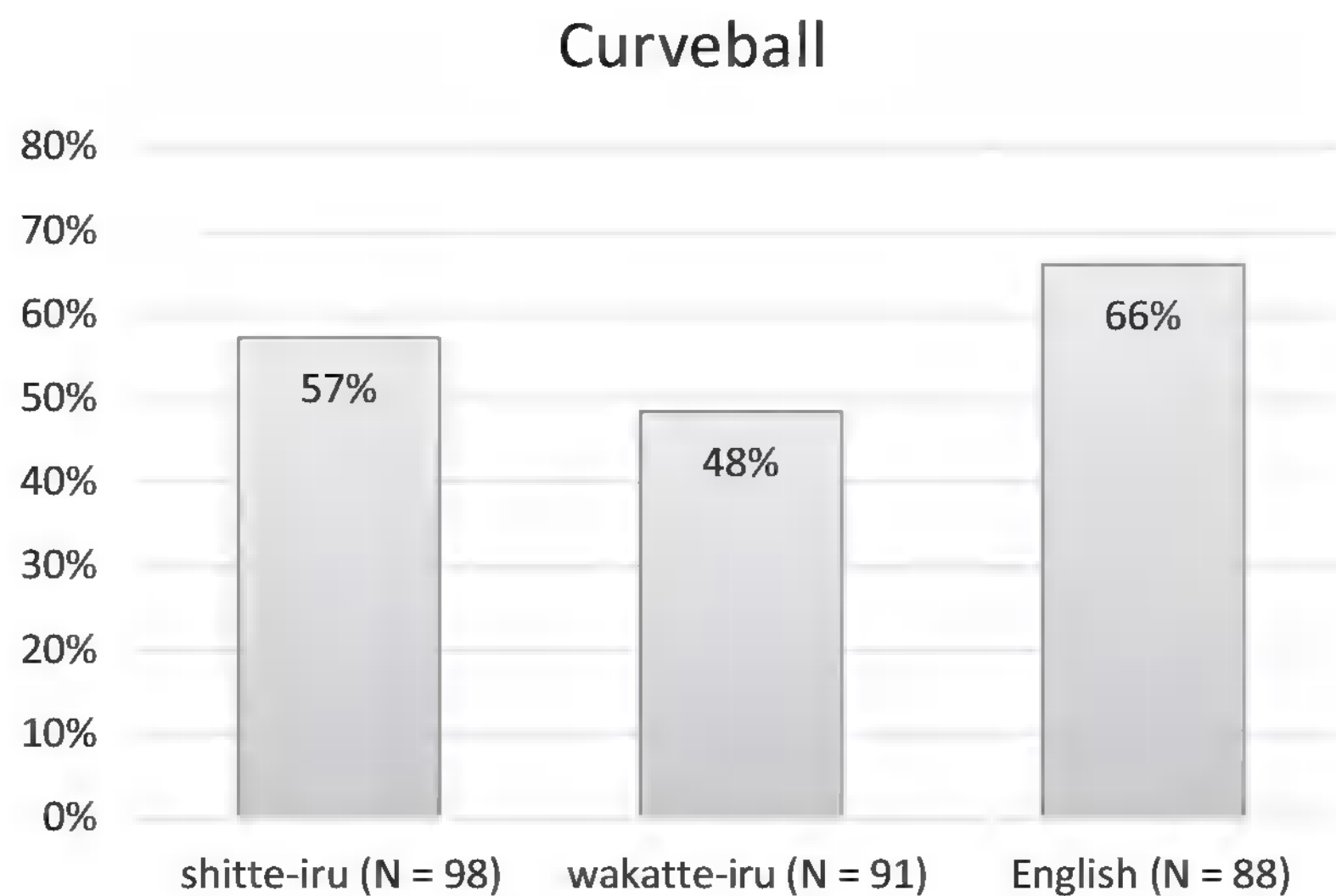
even if the agent is mistaken in what it is the description is about. Thus, the contrast with the low ascription rates in Karaoke 2 supports the deontic conception of Japanese knowledge-how.

Tennis Case

This was the only case where we found a significant difference between "shitte-iru" and "wakatte-iru" (see the following). On the other hand, there was no significant difference between "know" and "wakatte-iru" in both questions. Also, there was utterly no difference between the results of the first and those of the second question.[13] Significantly more participants ascribed knowledge-how only in "shitte-iru," in both the first question and the second question (for both questions, 95% CI: 59%-77%).

In the results of the first question, the difference of the knowledge ascription between "shitte-iru" and "wakatte-iru" and the one between "shitte-iru" and English "know" were both significant (for the former, $p < 0.0001$, $w = 0.29$, for the latter, $p = 0.023$, $w = 0.20$).

Again, in the results of the second question, the difference of the ascription rates between "shitte-iru" and "wakatte-iru" and the one between "shitte-iru" and English "know" were both significant (for the former, $p = 0.037$, $w = 0.16$, for the latter, $p = 0.024$, $w = 0.18$).

The fact that there was no significant difference between the first and the second question in English "know" suggests that English knowledge-how is also taken to be deontic in both questions. As expected, "know" behaves closer to "wakatte-iru" than "shitte-iru" when there is a significant difference between "shitte-iru" and "wakatte-iru." Significantly

Tennis (the first question)

68%	40%	48%
shitte-iru (N=98)	wakatte-iru (N=91)	know (N = 42)

Tennis (the second question)

68%	53%	51%
shitte-iru (N=98)	wakatte-iru (N=91)	English (N=88)
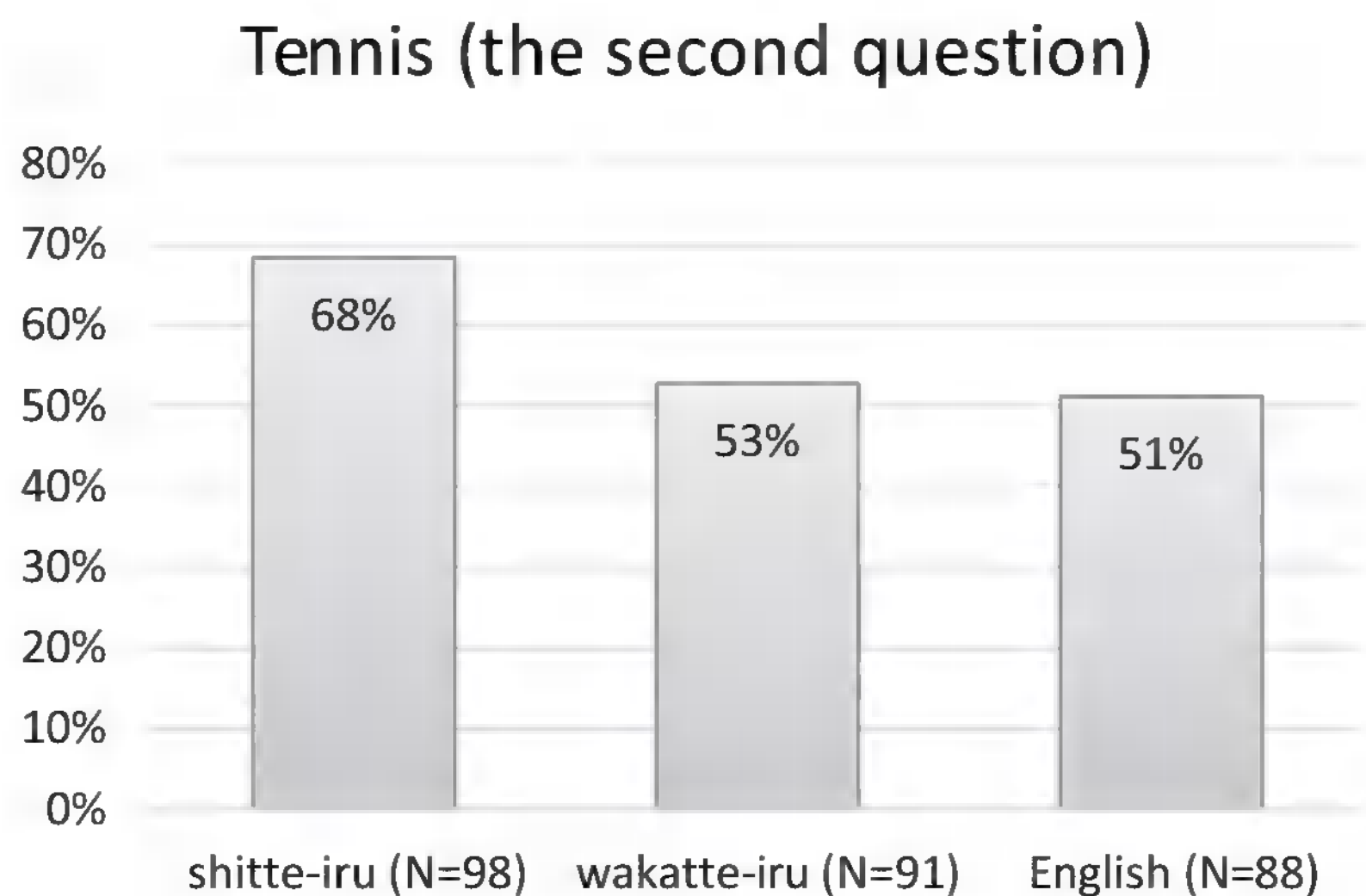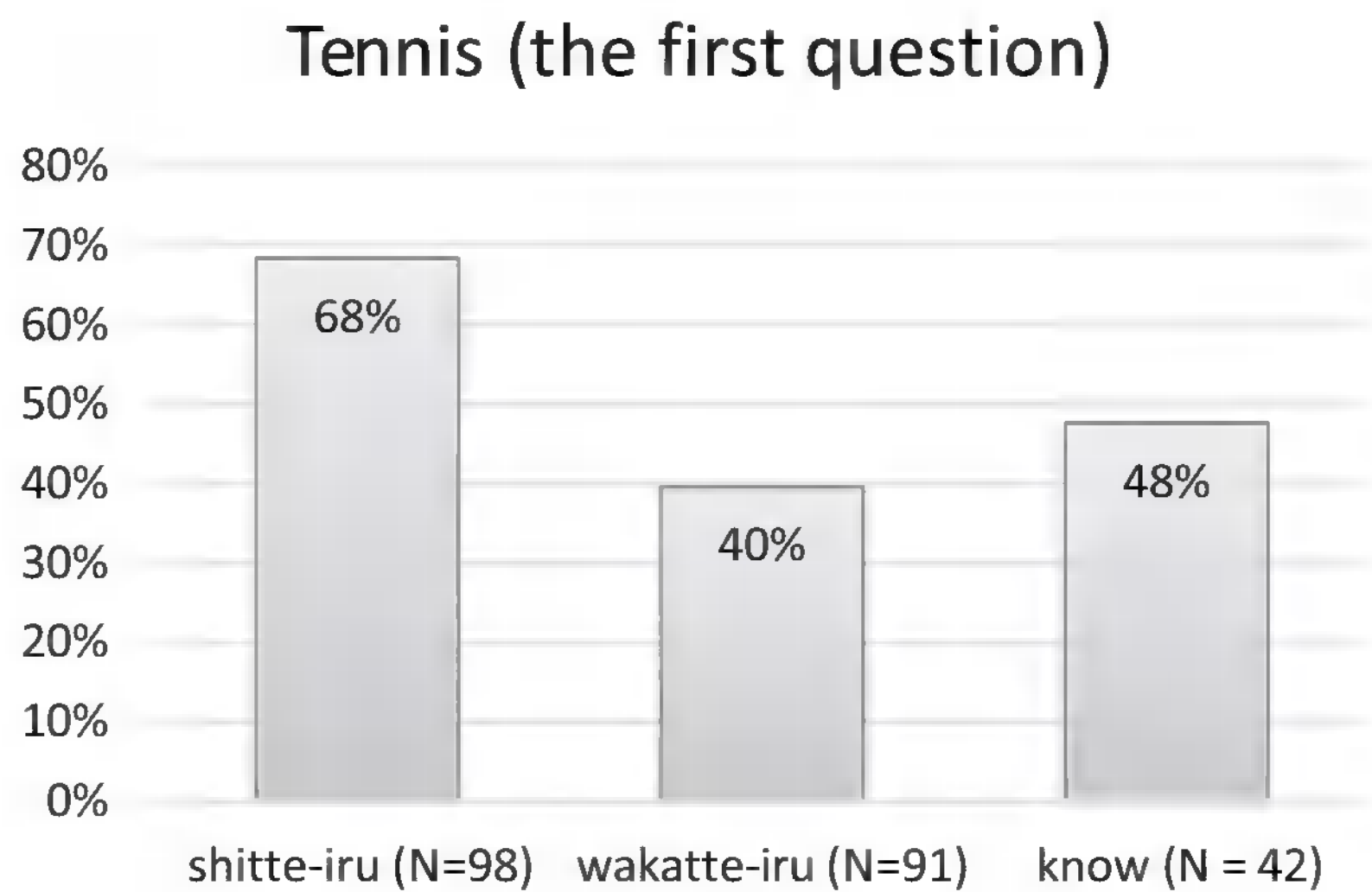
lower ascription rates than that of "shitte-iru" suggest that ability or controllability still matters for "wakatte-iru" and "know," even when a deontic reading is dominant.

4.5 General Discussion

The study here examined three knowledge verbs in knowing how constructions with respect to three possibly relevant factors: 1) ability, 2) belief about ability, and 3) description about how one ought to do. Let us first see the results of the English survey and then those of the Japanese

surveys, followed by the comparative consideration and the discussion of its philosophical implications in section 5.

English

Our hypothesis was that English knowledge-how typically focuses on the relevant ability of the agent. The Ski case (together with the felicity judgment data reported in section 3) made it clear that ability is required for English knowledge-how. We may take the Tennis case to be an intermediate case where the agent has only a partial ability. If we take Karaoke 2 as the paradigmatic case of ability, then we have the following clear order of knowing how ascription rate.

English Know How and Ability

Lack of ability (Ski)	18%
Lack of control (Tennis)	51%
Ability (Karaoke2)	73%
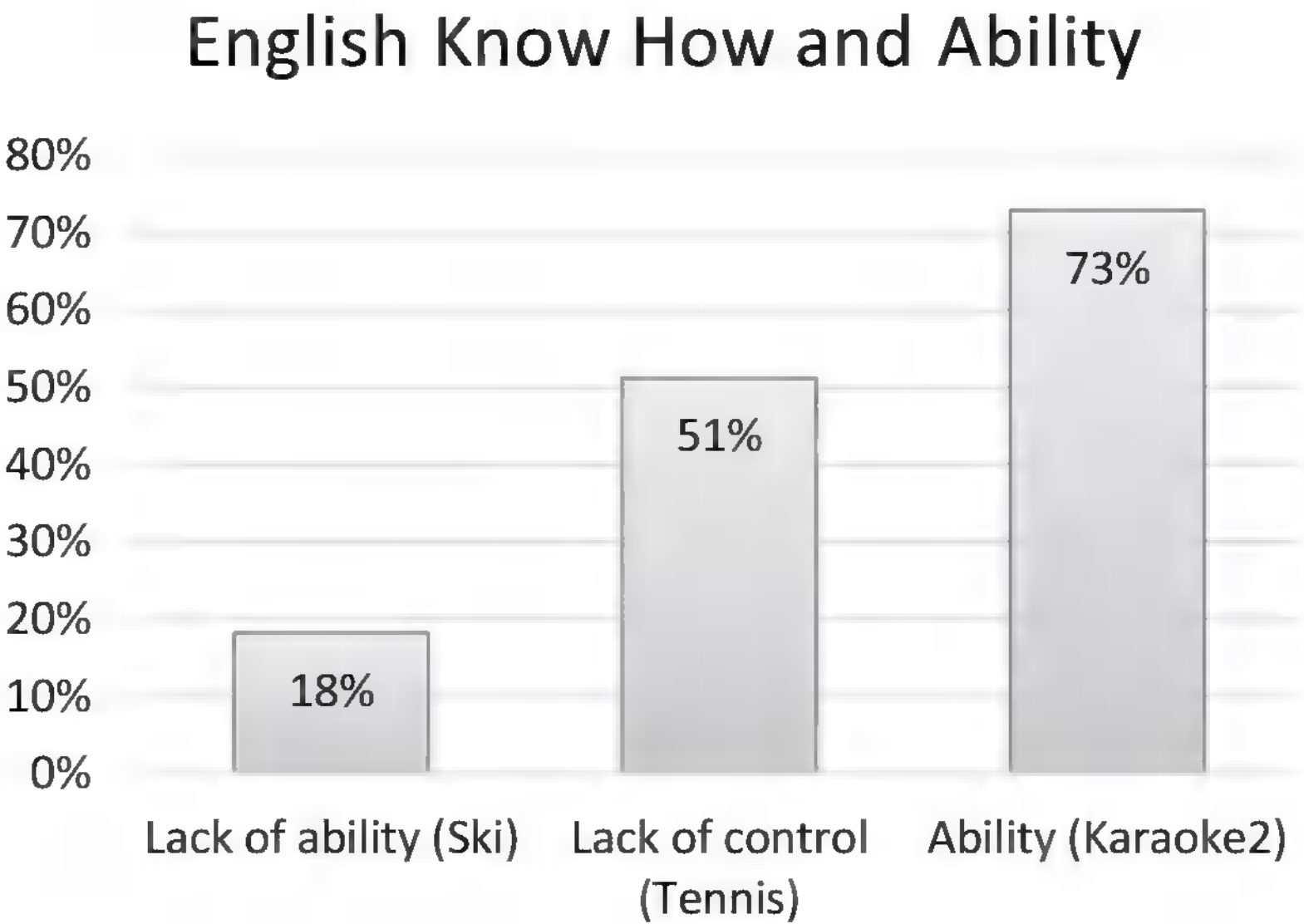
However, the contrast between Karaoke 1 and 2 also clearly showed that mere ability is insufficient for knowledge-how. Some belief about the ability seems also necessary. Then Salchow 2 and Curveball explicated exactly what kind of belief is required there. The relevant belief is a belief about the relevant performance, which allows the agent to confidently perform the relevant act, regardless of whether the agent is mistaken about w (Salchow 2) or about φ (Curveball) in w *is a way to* φ. On the other hand, if we are right, Salchow 1 was the case where the agent lacks the relevant belief while having the ability, just as Karaoke 1. Anti-intellectualists may then explain the need for such a belief as a necessary condition for the *intelligent action*. Thus, the results of the English survey count only against intellectualism.

The correctness of this view on knowledge-how can immediately be seen if we order the overall results of the English survey in the following way, which is exactly as predicted in section 4.2.

Overall Results of English Know How
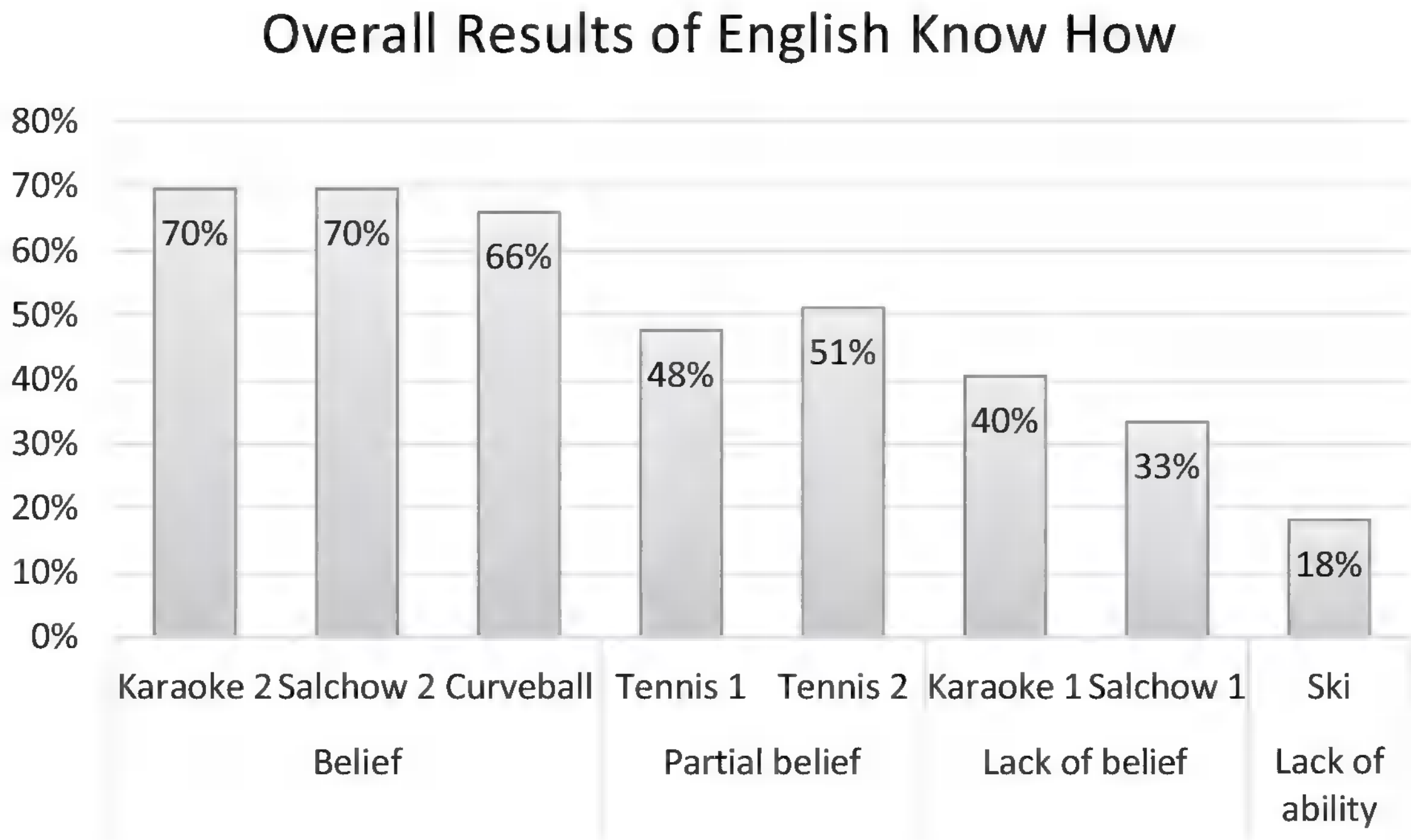
Japanese

In TIM we suggested that the relevant modality of Japanese knowing how constructions is deontic, rather than ability. It is then knowledge about how one ought to do something, and therefore, there should be some relevant description of how one ought to do it in Japanese knowledge-how.

The paradigmatic knowledge-how as deontic knowledge is found in Tennis 1 and 2, where we found high ascription rates, just as expected. Also, the Ski case clearly shows that such description is enough for Japanese knowledge-how. On the other hand, lack of such description should amount to lack of knowledge-how, which is exactly what we observed in the results of Karaoke 1 and 2. Moreover, the possession of such description is compatible with the agent being mistaken about what it is the description is a description of (Curveball) or even with the description itself being objectively wrong (Salchow 2), without thereby requiring the knowledge about *w is a way to φ* in Stanley's intellectualist analysis. However, the falsity of *w* is acceptable only insofar as it works as a heuristic. If not, that should lead to a low rate of knowledge ascription, if not so low as the Karaoke cases, where there was no description at all, which was again exactly what we observed in the data of Japanese surveys.

Overall Results of Japanese Know How (shitte-iru)

Overall Restults of Japanese Know How (wakatte-iru)
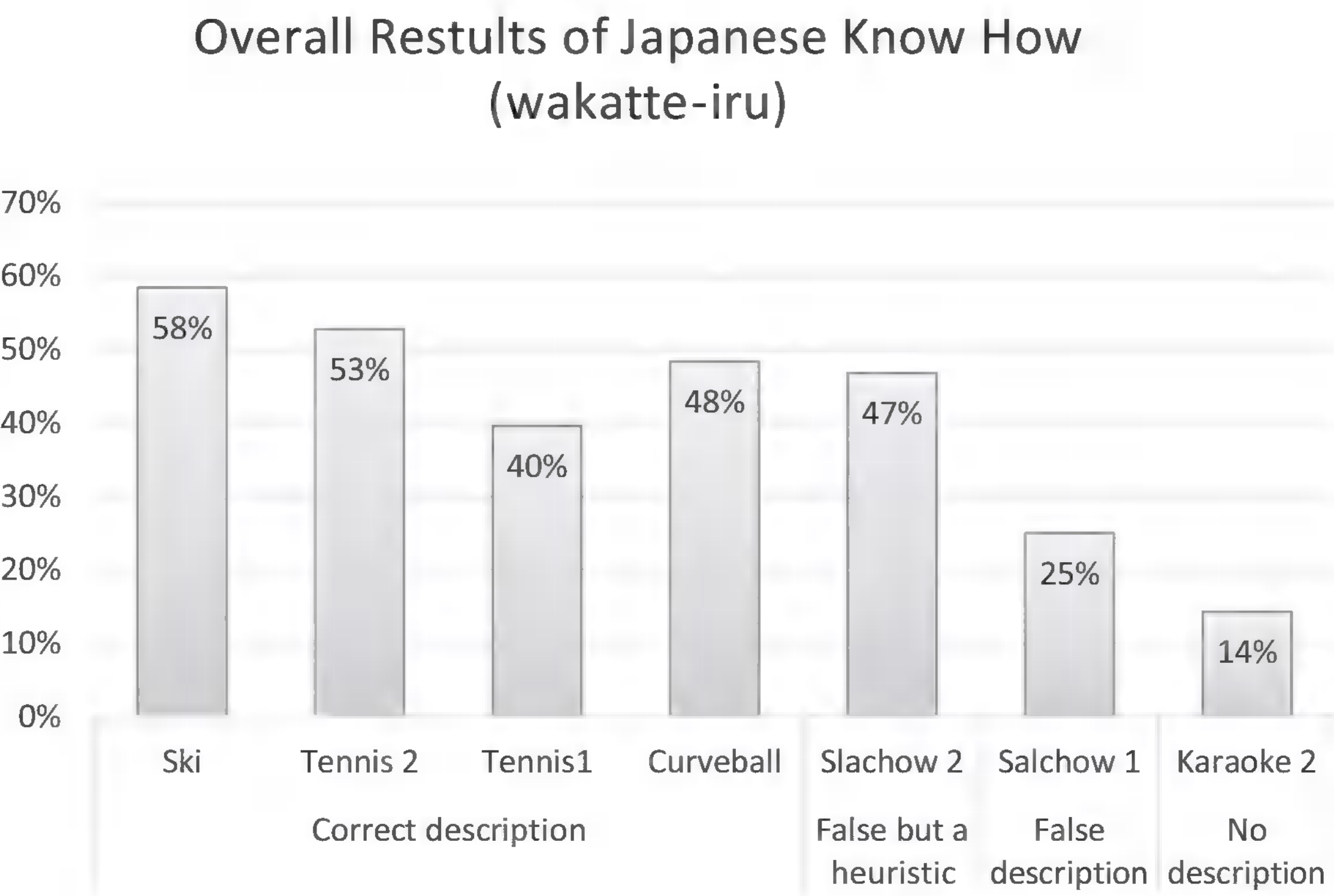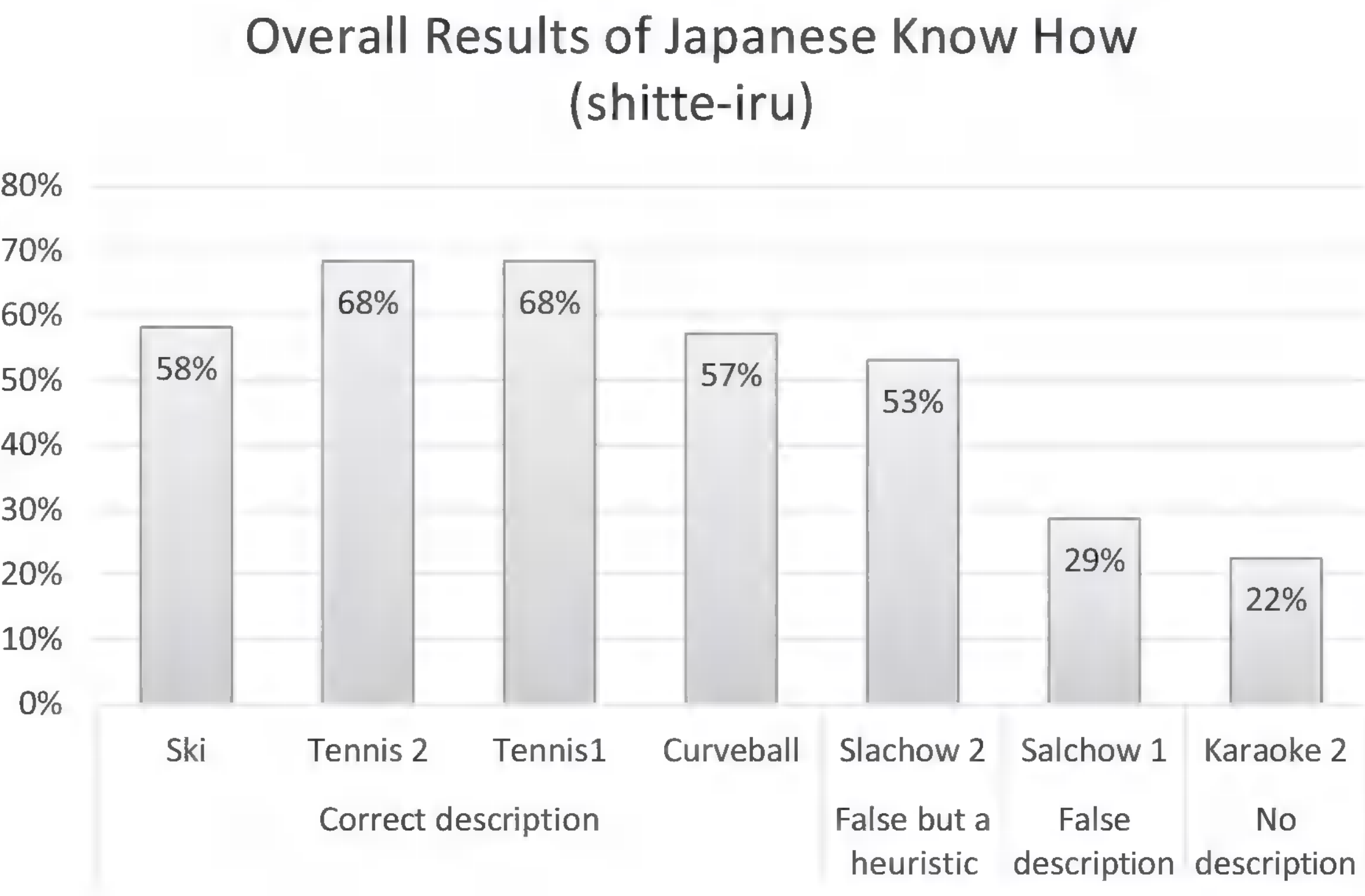
For comparison, look at the English data ordered in the same way as the Japanese data:

Overall Results of English Know How (for comparison)
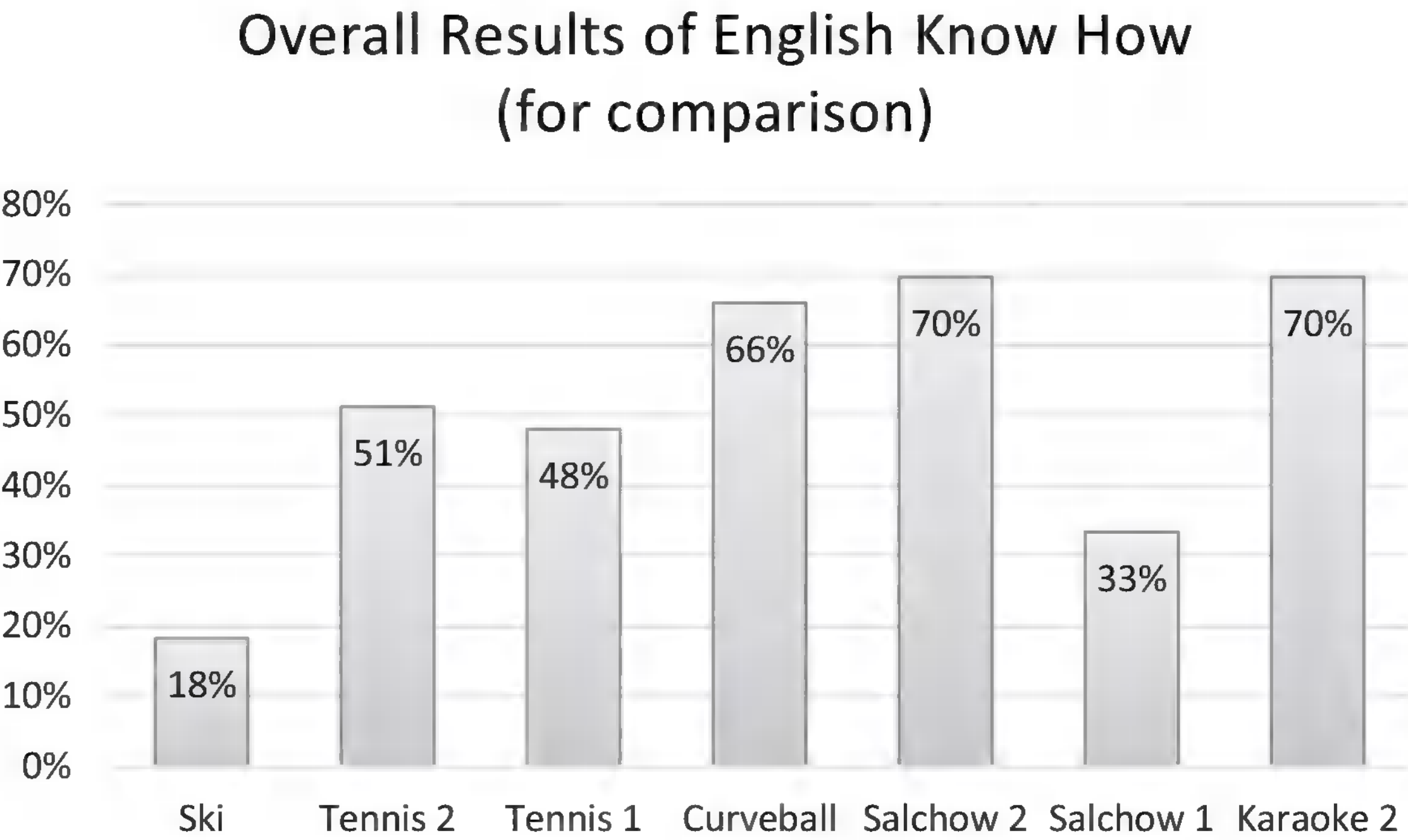
Here we can clearly see that the knowledge-how ascription patterns are totally different between the two Japanese verbs and English "know."

5. Philosophical Implications

We have already discussed some philosophical implications of our present results. The results of the English surveys in Study 1 and the Ski case of Study 2 raise a significant difficulty to intellectualism, and those of the Salchow and Karaoke cases and the Curveball case provided further, almost decisive, evidence against intellectualism. Arguably, the results of the Japanese surveys supported a kind of intellectualism, but it was very different from Stanley's intellectualism.

Indeed, the results of our studies call for a change in the way we see the intellectualism vs. anti-intellectualism debate. The radical linguistic difference of knowledge-how in its implication of ability between English and Japanese casts doubt on the significance of the very debate. In TIM, we proposed three possible philosophical implications of the results of the clear linguistic difference found in the earlier studies, which were extended and supplemented in our present studies.

(1) Pluralism
(2) Thin Monism
(3) Chauvinistic Monism

According to 1, there is a *plurality* of knowledge-how in the world. It follows that the debate between intellectualism vs. anti-intellectualism is indeed a local debate or a debate over properties of some particular language(s). At least, we will always need to have in mind *in which language* we are talking about knowledge-how, in any philosophical discussion of knowledge-how.

If this is an unwelcome consequence, 2 is the next option, according to which knowing how constructions in all languages share some core of knowledge-how. However, for this to be a viable option, there must be paradigmatic instances of knowledge-how that are shared by all languages. But what we have shown here is that even those that have been regarded as paradigmatic instances of knowledge-how in English (and other languages), such as knowing how to swim, knowing how to ski, etc., are actually not found in Japanese knowledge-how. Thus, if there is still any shared core, that must be very "thin," having no substantial content in it.

This leads us to the last option, that Japanese knowledge-how is not really knowledge-how discussed in the literature and can be entirely ignored as an exotic exception. This view is, however, extremely implausible. If Japanese knowledge-how is not knowledge-how, then what is it? Moreover, this view commits itself to a massive error theory, according to which when Japanese speakers translate English "know how" sentences into Japanese; they are *always* making *mistakes*. But if so, what is the correct translation? Some dispositionalists or anti-intellectualists may be happy to conclude here that "know how to φ" should be always translated as "can φ" in Japanese. But then why cannot the same be said to *English* knowledge-how? This would rather lead to *eliminativism* of knowledge-how, where the paradigmatic instances of knowledge-how (like knowing how to ski) are actually not knowledge-how.

Although none of these three options are very attractive, it seems that the best we can do is to accept the first option, pluralism about knowledge-how, just as Mizumoto (2018) claimed about propositional knowledge. This preserves the current Anglophone debate over intellectualism vs. anti-intellectualism as it is today, just changing the interpretation of the nature of the debate: It is a debate over a particular kind of knowledge-how or knowledge-how captured by particular languages.

6. Concluding Remarks

We have seen in this chapter that the ascription pattern of Japanese knowledge-how is radically different from that of English knowledge-how. English

knowledge-how varies with the relevant ability, together with the belief about the ability of the agent, whereas Japanese knowledge-how varies with the agent's (implicit) description about how one ought to do something, which therefore constitutes the agent's deontic knowledge. Thus, if we are right, they are different *kinds* of knowledge-how, and if so, we should expect there to be many *other kinds* of knowledge-how too.

The study of knowledge-how started from the debate over intellectualism vs. anti-intellectualism. Perhaps, however, it is now time to free ourselves from that particular way of framing the field of study. It may be more important to delineate the shape of knowledge-how of each language through empirically studying it from various perspectives. The rich details of different kinds of knowledge-how we can find through empirical investigations will tell us the conceptual possibilities of the relation between intelligence and ability and shed new lights on human intelligence itself.

Acknowledgement

Notes

1. Of course, the English knowing how construction also has such a reading, as we will discuss later in section 3.
2. Though, of course, there is also a deontic modal reading for the infinitive in the English knowing how construction, as will be discussed in connection with the Tennis case in section 4.
3. These are meant to test the compatibility of knowledge-how with the lack of ability. The material also included the sentences for testing the compatibility of ability with the lack of knowledge-how (though we do not discuss their results here since we did not find a comparably interesting cross-linguistic difference in the judgments on of the latter sentences).
4. The effect size we use throughout this chapter is Cohen's φ, according to which effect size is small when $\omega = 0.1$, medium when $\omega = 0.3$, and large when $\omega = 0.5$.
5. See Stanley's own *interest-relative invariantism* (Stanley 2004), Turri's *ablism* (2016), etc., which John Turri and Wesley Buckwalter broadly called *Lockean views of knowledge* (Turri and Buckwalter 2017), etc. See also Stanley (2011a, Chap. 4).
6. The vignettes of the actual surveys contained one more vignette (for testing the effect of stakes), which was consistently placed at the top throughout the surveys. However, since the study of it was not complete within this study (Study 2) as well as due to the limitation of space, here we omit the vignette and the discussion of its results.
7. It is of course possible for intellectualists to respond that knowledge-how is propositional knowledge that does not entail belief. We put aside this option in this chapter.

8. Though it has been shown that the folk intuitions of English speakers about the Truetemp case are not so stable and contextually vary (Swain et al. 2008).
9. Saitama University, N = 47. Note that the survey also included Ski case, Karaoke case 1, Curveball case, and Tennis case. We found no significant difference from the results of Study 2 reported later.
10. See Mizumoto (2020) for a thorough discussion on this ambiguity.
11. Even though Stanley says, concerning the description of *w*,

    I might very well have false descriptive beliefs about a certain way of φ-ing, while retaining my knowledge about that way of φ-ing, thought of demonstratively or practically, that it is a way to φ (Stanley 2011a: 167),

    there is no gap between Susan (Irena)'s description of *w* (how to jump a Salchow) and demonstratively presented *w*, either of which is *not* a way to jump a Salchow Susan tries to follow *w*, which leads her to a successful Salchow just by luck, due to her neurological disorder (which affected even her *sense* of the movement). Thus, if Susan had correctly followed *w*, she would have failed to perform the Salchow. This means that both her description of *w* and the demonstratively presented *w* are wrong as a way to jump a Salchow even *for her*.
12. To report only the comparison with the non-interaction model, the overall differences between "know" and "shitte-iru," "know" and "wakatte-iru," and "shitte-iru" and "wakatte-iru" were, respectively, $p < 0.0001$ ($\chi^2 = 76.32$, df = 5), $p < 0.0001$ ($\chi^2 = 81.67$, df = 5), $p = 0.086$ ($\chi^2 = 9.66$, df = 5).
13. Note that, due to the programming failure, we lost a half of the data of the first question. Since we did not generally observe the order effect in the present study, we report here the remaining half of the data as the result of the first question of the Tennis case.

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Appendix: Vignettes Used in Study 2

The following are actual vignettes (the English version) used in Study 2 (Section 4). The actual order presented to participants were, Ski => Curveball => Tennis => Karaoke => Salchow for one group, and the opposite order for the other group.

1. Ski Case:

Tom, a freshman at a university, is going on a skiing vacation at a mountain with his university friends. However, he has actually never skied before, though he doesn't tell it to his friends because he doesn't want to look bad. To counter the lack of experience, before leaving for the mountain, over a few days, Tom studies a book for beginner skiers cover to cover and watches skiing videos repeatedly. He is a little anxious, but he also feels that no one will find out he's never skied before, because he's pretty athletic and generally good at sports.

Question: Tom knows/doesn't know how to ski.

2 (1). Karaoke Case 1:

A middle-schooler, Ken, worries that he's bad at karaoke. He isn't aware that he sings off key himself, but people around him usually start laughing while he's singing. This has been so embarrassing for him that he almost hates music itself. Ken's father can't ignore his son's plight and hires a distinguished surgeon to have an operation that makes him a good singer while Ken is asleep. Ken isn't told that he had an operation. One day, Ken goes to a karaoke bar with his friends. He is rather reluctant to take his turn and sing a song, but he does it anyway. Much to his surprise, he can somehow sing in perfect pitch, receiving a round of applause from his friends.

Question: Just after the operation (but before he sang), Ken knew/didn't know how to sing well.

2 (2). Karaoke Case 2:

To the previous vignette we added the following sentence at the end:
   Ken is satisfied with this surprising event, thinking that he became good at singing now.
   Question: Ken now knows/doesn't know how to sing well.

3 (1). Salchow Case 1:

Susan is an amateur figure skater practicing a jump called the Salchow. She is, however, seriously mistaken about how to perform a Salchow, and incorrectly believes that performing a Salchow requires rotating and landing on the ice in a particular direction, which is in fact the exact opposite of what one needs to do to jump a Salchow.
   However, Susan has a severe neurological abnormality that makes her jump in ways that are the opposite of how she actually thinks she is jumping. As a result, whenever she actually attempts to do a Salchow, Susan always ends up successfully performing it even though she is moving in ways that are opposite to her intention.
   Question 1. Susan can/cannot jump a Salchow.
   Question 2. Susan knows/doesn't know how to jump a Salchow.

3 (2). Salchow Case 2:

One day, a novice skater came to Susan and asked her to demonstrate how to jump a Salchow. "Salchow is a jump like this", says Susan, and jumped a perfect Salchow.
   Question 2*. Susan knows/doesn't know how to jump a Salchow.

4. Curveball Case:

Sam recently started playing baseball and learned from his older brother how to throw a curveball. But the mischievous brother falsely told Sam that the pitch was called a "slider". Sam didn't doubt what he was told by his brother, who is skilled at baseball. Now, Sam falsely believes that he can throw a slider but is unable to throw a curveball.
   Question: Sam knows/doesn't know how to throw a curveball.

5. Tennis Case:

Mike is a rising tennis player attracting a lot of attention. However, he has been repeatedly criticized by his coach for his lack of sportsmanship, such as cursing on court and throwing a racket to the ground.

One day, Mike is clearly losing a match against a higher ranked player; he is playing poorly and making many errors. When the opponent holds match point, Mike merely stands still, displaying no intention to return the ball. After the match, he is severely scolded by the coach, but he just replies, "It was totally useless to do anything there."

Question 1: Mike knows/doesn't know how to behave in a tennis match.

Question 2: Mike knew/didn't know how to behave when the opponent held match point.

3 "The Rectification of Names" as a Confucian Theory of Epistemic Justification

Yingjin Xu

1. Introduction

Confucius (BC551~479) is widely viewed as an ethical thinker rather than an epistemologist. As an attempt to challenge this stereotype, recently Shane Ryan and Chienkuo Mi (2018) argue that the Confucian philosophy is crucially significant to contemporary virtue epistemology in the sense that the so-called agent-based approach taken by Confucius is somehow similar to the approach taken by contemporary virtue epistemologists. I have sympathy for their treatment of Confucian philosophy for many reasons. But I also believe that the unexplored resources in *Analects* are so rich that their implications cannot be exhausted by appealing to virtue epistemology alone. Very generally speaking, virtue epistemology, which takes intellectual agents and communities as the primary focus of epistemic evaluation, is basically externalism-oriented in the sense that epistemic agents' *internal* processes for epistemic justification and knowledge attribution are largely marginalized in this approach. But I am not sure whether the marginalization of this type is really unproblematic for reinterpreting all Confucian texts. To be specific, I believe that in many occasions Confucian scholars do need to justify a certain belief in an internalist manner without explicitly appealing to belief-holders' virtues or vices. As for instance, in a series of famous debates held at the imperial court in 81 BC, namely, the so-called Discourses on Salt and Iron (cf. T. C. Liu 1934), Confucian scholars, who intended to abolish the national monopolies of iron and salt, could hardly achieve their goal by simply appealing to the "vice" of the monopoly-policy-maker, Sang Hongyang[1] (桑弘羊, BC152~BC80), given that his political authority was still unchallengeable at that time. Alternatively, these Confucian scholars turned to put forward arguments based on some widely accepted Confucian doctrines like "State-runners should not compete with the ruled people by squeezing profits", and internal structures of these arguments were thereby reflectively traceable in a way as internalists (in a very broad sense) could expect. Or, put a bit more generally, like internalists, Confucians believe that a large part of their justifications are under the control

of their own conscious states and hence verbally expressible, otherwise open debates on public policies would be made impossible. However, by saying this, I do not intend to claim that the Confucian approach to justification is exclusively internalist. Surely some supposedly infallible assumptions are needed to elude circularity in the process of justification, and in the Confucian context, these assumptions are "infallible" mainly because they are related to some *external* authorities (more on this later). Hence, for Confucians, justification simply looks like a mental technique for retrieving norms from the external resources to regulate internal reasoning procedures.

Besides the main task of formulating the Confucian notion of "justification" in a way at least minimally friendly to internalism (but not simultaneously precluding all externalist elements), in this chapter, I also intend to explain why the Confucian notion of "justification" deserves a serious consideration even by epistemologists outside the tradition of Asian philosophy.

However, in this chapter, I will not intensively address the Confucian notion of "knowing", although "to know" is the most emphasized key word in most contemporary epistemological constructions. One of the reasons to elude the issue on "knowing" is that original texts relevant to this topic are still too rare to support a full-fledged epistemological theory. Actually in one version of *Confucian Analects*, namely, the version circulated in the area of Qi(齊), there is an independent chapter under the title of "On knowing (Dao)" (知道篇). Unfortunately, the full content of the Qi-version was missed. Recently it was reported that some characters presented on the bamboo slips unearthed from the tomb of the Marquis of Haihun ("海昏侯", whose name is Liu He [?~BC59] or "劉賀" in Chinese) were identified as belonging to "On knowing". But still unfortunately, only 24 characters were recognized,[2] and the rest of this chapter is still being searched for. Hence, it would be more prudent for us to wait for more archeological findings relevant to "On knowing (Dao)" before we seriously reconstruct the Confucian notion of "knowing".

A more philosophical reason to elude the issue on "knowing" is that in the Western tradition, the notion of "truth" is a salient and necessary ingredient of "knowing", whereas as Chad Hasen (1985) points out, the pre-Han (i.e., before BC202) philosophical tradition in China did not address issues centralizing the notion of truth. This is, according to Hansen, greatly due to the linguistic features of classical Chinese language, e.g., compositional sentencehood is not important or syntactically obvious, and propositional attitudes take terms rather than sentences as objects.[3] Hence, even if Confucians were to use terms like "knowing" in the Qi-version of *Analects*, their systematic marginalization of "truth" would fairly likely make their discussions of "knowing" quite different from the discussions of "knowing" in the Western tradition. By contrast,

as I will immediately demonstrate, the Confucian notion of "the rectification of names" is more relevant to the Western epistemology in the sense that this notion can be barely viewed as the Confucian counterpart of "justification", which is another core notion of Western epistemology besides "knowing".

2. The Very Idea of "the rectification of names": The First Approximation

As the title of this chapter indicates, the Confucian notion of "justification" is nothing but the notion of "the rectification of names". To be more specific, such a theory depicts how a justifying subject ought to attribute predicates with *normative* elements to different objects (including artefacts) or persons or social constitutions or even actions.

The key citation in *Analects* relevant to my reconstruction is as the follows:

> Zilu(子路) asked, "If the Duke of Wei were to employ you to serve in the government of the state, what would be your first priority?"
>
> The Master answered, "It would, of course, be the rectification of names. . . . If names are not rectified, things will not be successfully accomplished. When things are not successfully accomplished, ritual practice and music will fail to flourish; when ritual and music fail to flourish, punishments and penalties will miss the mark. And when punishments and penalties miss the mark, the common people will be at a loss as to what to do with themselves. This is why the gentleman only applies names that can be properly spoken and assures that what he says can be properly put into action."
>
> (Confucian Analects: 13.3)[4]

The core idea of Confucius's words is basically that actual states of affairs in the world should exist in a way in accordance with "names", which are routinely used to depict them, otherwise their existence cannot be endorsed from a normative point of view. Or in another way around, according to Confucius, if wrong names were to be attributed to objects, wrong norms embedded in these names would be applied to the reality as well, and mismatching of this type would systematically produce social disorders of one form or another.

A more colloquial reformulation of Confucius's idea is simply "to do everything under the right name in order to get things smoothly done". This idea was frequently employed by different historical agents in Chinese history for justifying what they actually desired to do. Just to take a couple of instances related to the so-called Three Kingdom Period, which was greatly romanticized and hence gained popularity in the cultures of China, Japan, Korea, and Vietnam.

Illustration No. 1: When Cao Cao (曹操, 155~220), the chancellor of Eastern Han Dynasty (25~220), rose to a great power and controlled the most of northern China after a series of bloody battles, he still insisted on keeping the Emperor Liu Xie (劉協, 181~234) as his political puppet, since he believed that commands under the imperial name could be more smoothly executed than commands under his own name, especially in the historical context wherein most Confucian scholars, even including many on the side of Cao Cao himself, still endorsed the authority of Han Dynasty.

Illustration No. 2: When Yuan Shu (袁術, ?~199), a warlord nominally subject to the Han Dynasty, imprudently declared himself emperor in 197, his behaviors gave Sun Ce (孫策, 175~200), a young military genius expanded his territory under Yuan's banner, an excellent political excuse to gain his own independence, since it was Yuan's abandonment of the name of "Han" that first turned himself into a usurper not deserving respect from Sun's side.

Illustration No. 3: When Cao Pi (曹丕, 187~226), the second son of Cao Cao, intended to force Liu Xie to abdicate the throne to him after the death of Cao Cao, he, mimicking the strategy of his father, still approached his political goal very carefully lest he should be viewed as a Yuan-Shu-like "usurper" in the public square. Cao Pi's strategy was to suggest Liu Xie to sign a document for formally abdicating the throne to himself in the first place, then he formally declined this proposal for three times, and finally, he accepted it with pretended reluctance and thereby proclaimed himself the first emperor of the Empire of Wei (魏) in 220. Such procedures, as Cao Pi believed, made his succession to Han Dynasty "under the right name" and hence legitimized.

However, these historical illustrations may give readers a misleading impression that the notion of the "rectification of name" can be only applied to political/ethical issues. Actually, though the term "name" (名) in the Confucian texts more frequently refers to general names of social roles or artefacts related to ritual practices, they can be names of natural kinds or even mental states as well. The generality of the Confucian notion of "names" is explicated in the Chapter 22 of *Xun Zi*, another Confucian text traditionally attributed to Xun Kuang (荀況, BC310~BC235). There Xun Kuang not only mentioned "the names of criminal laws", "the names of titles of rank and dignity" (22.1a)[5] but also scrutinized names related to forms, colors, pitches, timbres, tastes, and so on (cf. 22.2d), and these topics are surely not typical for ethical/political discourses. Hence, when Xun Kuang claimed that "to avoid confusion one should give each different reality a different name" (22.2f), the claim itself is obviously general enough to cover both the epistemological and the ethical/political cases. Hence, basing on generality of this type, it would not be so farfetched to update the original notion of the "rectification of names" as an epistemological theory.

However, a caution still has to be made here: In classical Chinese, the term "name" (名) more frequently refers to general names rather than proper names of individuals, hence, when the relevant Confucian narrative is being reconstructed in the light of modern logic, it is more suitable to characterize Confucian "names" as propositional functions or predicates. But this treatment is still imprecise in some degree, since by appealing to "propositional functions" alone, one still cannot explicate normativity embedded in Confucian "names". Hence, extra explanatory commentaries are also needed to enrich the formalization of the notion of "rectification of names" as follows:

> **Definition-1 (D-1):** To say that "S is justified in holding a belief of the form $R(a)$" is tantamount to saying that "S is justified in believing that a is rectified under the name of R", and this saying is true *if and only if* (hereafter "iff") other descriptions of a (other than "$R(a)$") actually acquired by S are instantiations of norms encapsulated in the function $R(x)$, whereas these norms are held by qualified justification-ascribers. Here "a" may refer to persons, physical objects (including artefacts), social constitutions, or even actions.

Let me unpack this definition a bit. Following Frege, I assume that the dichotomy between the "saturated part" of any belief and its "unsaturated part" is universally applicable to any assertion. So "$R(a)$" is the simplest form of a belief that depicts state-of-affairs in the actual world (I will not talk about logical and mathematical propositions here). As for instance, given that the belief that "My ring is gold" is the target belief of epistemic evaluation, according to D-1, this belief is justified iff all of the actually acquired descriptions about my ring (like "It is heavy", "It is shining", etc.) are instantiations of normative descriptions of anything that is gold. By "normative descriptions of anything which is P" or "norms imbedded in P", I mean a set of sentences of the following form: "For any x, if x is P, then x is expected to exhibit Q under condition C". (e.g., "If this object is really gold, then when it is exposed to lights, it would be shining".) Accordingly, by "instantiations of norms", I mean any actually acquired belief that can make the unsaturated parts of the foregoing norms saturated (and keep the rest of it unchanged). Or more generally speaking, the evaluation of the referents of the saturated parts of a belief, according to D-1, should be conducted within the logical space set by norms encapsulated in the unsaturated parts of the same belief. Given the generality of the whole template, D-1 is surely applicable both to epistemology (wherein objects of evaluation may include non-agents) and political philosophy (wherein objects of evaluation should be agent-involving).

The preceding template can be easily reused to reconstruct what Confucius intended to say in the political arena (which is definitely

his primary concern). More specifically, the belief that, say, "Arthur is a qualified King" is justified, or Arthur's deeds are "rectified under the name of *KING*", iff all the actually acquired relevant descriptions of Arthur's deeds are instantiations of norms of a qualified king. Accordingly, by using this template, one can even say that a certain warfare is rectified under the name of "justice" iff all of the actually acquired relevant descriptions of this war are instantiations of norms about what a legitimate war should like to be.

3. Some Clarifications of the Notion of "The Rectification of Names"

Some critics may contend that the nature of D-1 is nothing but a re-formulation of the Fregean/Tarskian notion of the satisfying conditions of a true sentence, according to which a king is really a king when the object satisfies the conditions for being a king. Thus, D-1 looks like a semantic model for predicting when "$R(a)$" is true (namely, a model claiming that a belief is justified iff it is true) and hence not very epistemologically relevant. However, I still believe that my model is epistemologically relevant enough. Here are my reasons for saying so:

First, as a matter of fact, it is not so easy to interpret the cited texts in *Analects* in the light of the Fregean/Tarskian semantics *on truth* mainly due to the consideration that "truth" is not a key notion in *Analects* (as I have mentioned in the "introduction"). By contrast, due to the influence of *Analects*, the notion of "the rectification of names" was frequently employed by different historical agents in Chinese history for justifying what they desired to do (cf. the cases on Cao Cao and relevant historical figures, which were cited in the last section). Although these historical cases are typically about moral/political justification rather than epistemic justification, they are still about "justification" in the general sense and hence can be made to be able to cover epistemic justifications when the D-1-like reconstruction is put on the table.

Second, even when a contemporary Confucian is forced to use the semantic notion "true", she would still likely use it in a deflationary manner, by, say, saying that a belief $R(a)$'s being justified in terms of "the rectification of names" (or "RN-justified" in short) entails $R(a)$'s being true but not vice versa. Or more explicitly, $R(a)$'s being true merely requires the fitting-relations between the observations of a and a comparably *smaller set* of normative descriptions encapsulated in $R(x)$, while $R(a)$'s being RN-justified requires the fitting-relations between the observations of a and a comparably *bigger set* of normative descriptions encapsulated in $R(x)$. The set of normative descriptions is bigger in the second case because it implicitly involves a set of norms embedded in predicates synonymous to or explanatory of $R(x)$, say, predicates like $R_1(x)$, $R_2(x)$, etc. Hence, with the aid of the involvement of these nearby predicate-nodes

in the semantic network, a belief-holder could accomplish justifying tasks in the following way: $R(a)$ is RN-justified in terms of $R_1(a)$'s being RN-justified, given that $R(x)$ is explained in terms of $R_1(x)$. Although such treatment may evoke infinite regress (since the RN-justification of $R_1(a)$ will require a further step for, say, justifying $R_2(a)$, *ad infinitum*), such a problem could be solved by appealing to some infallible beliefs, wherein some exemplary objects or figures are linked to some typical predicates *in an undoubtable way*, which is in turn endorsed by certain Confucianism-based historical records (like *Spring and Autumn Annals*).[6] Therefore, the D-1-narrative does have rich resources for supporting a theory of justification rather than merely a semantic theory of truth.

Third, there is another asymmetry between the Fregean notion of truth and the RN-notion of justification. For the former, when an object is fitting criteria embedded in the predicates, the emphasis is on the object-side. Hence, when the belief of the form of "$R(a)$" is untrue, it should be the responsibility of the belief-holder to re-make her attributions to refit the reality. But for the case of RN-justification, when a belief of the form of "$R(a)$" is RN-unjustified, it should be the fault of the reality not be able to satisfy the existing criteria in the minds of belief-holders, and observations of this type typically encouraged Confucians to change the reality by forcing it to refit the norms in their minds again.[7] Since these norms are mostly historically inherited/derived from the rites in the Western Zhou Dynasty (BC1046~BC771), Confucian scholars were routinely labeled as "traditionalists", especially when they were posing to be against social reforms undermining social norms embodying the rites of the style of Zhou, (By the way, Confucian scholars' reaction to the monopolies of iron and salt in 81 BC was also based on their understanding of the idealized Zhou Period, when the state's control of national economy was minimized.) Hence, although fitting/satisfying conditions do appear both in the RN-notion of justification and the traditional semantic theory of truth, the directions of fitting/satisfying are entirely conversed to each other.

Fourth, I concede that when "$R(x)$" encodes a natural kind and "a" encodes an individual object belonging to a natural kind, the satisfying conditions for $R(a)$'s being true and those for its being RN-justified may go hand by hand with each other in many cases. As for instance, the process for judging whether "This piece of metal is silver" is true, in most cases, is not essentially different from the process for judging whether observations of this piece of metal are fitting the criteria for being sliver. But it is not necessarily so. Suppose two different belief-holders, say, S_1 and S_2, have different conceptual maps for accommodating the descriptions of the same natural kind, say, $R(x)$. To be more specific, for S_1, $R(x)$ should be construed in terms of $N_1(x)$, whereas for S_2, $R(x)$ should be construed in terms of $N_2(x)$, and $N_1(x)$ and $N_2(x)$ are mutually incompatible. Hence, certain observations favoring one's understanding of the

"$R(x)$-phenomenon" exclusively in terms of the "$N_1(x)$-phenomenon" will make S_2 very uncomfortable, hence, in this case, at least for S_2, such observations have to be judged as superficial or even misleading since they are not RN-justified. As for an example, in the thought-market of quantum physics, facing competing theories addressing the same phenomena like "interference" or "entanglement", a theorizer may favor this theory rather than another mainly because the favored one is more in accordance with her pre-theoretical higher-order notions of what the universe should be. To be more specific, if a theorizer has a pre-theoretical belief that the physical world should work under the name of "particle only", she would fully embrace the so-called "Hidden Variable Theory" (the ontology of which is precluding waves), give lukewarm support to Bohm's (1951) theory (the ontology of which allows the particle-wave duality), and fully reject the GRW theory[8] (the ontology of which is precluding particles). Or in another way around, from the perspective of such a theorizer, the first theory is fully RN-justified, the second one is barely RN-justified, whereas the third one is RN-unjustified.[9]

Fifth, D-1 involves the role that "qualified justification-ascribers" have to play, since if the qualification of ascribers is questioned, it would be fairly probable for different justification-ascribers with different norms related to $R(x)$ to deliver competing evaluations of the target belief held by the subject. Surely how to judge which ascriber is qualified enough would be a further issue, and the Confucian solution to this problem seems to be resorting to a mature social hierarchy in which opinions delivered by people with more "social credits" would be more authoritative. However, critics of D-1 may still ask a further question: what if even these "qualified" justification-ascribers are wildly wrong about what norms have to be involved in the process of categorizing a certain substance? I believe that there could be two Confucianism-oriented responses to this question: (a) Confucian Sages who are responsible for delivering norms for categorizing everything cannot be wrong, although mistakes could be made when their original contexts are being reinterpreted in contemporary contexts, or (b) there could be a meta-rule, which is itself not revisable, for revising the norms being discussed. But the project to develop the ideas imbedded in either (a) or (b) would involve a fairly complicated theoretic reconstruction and hence be beyond the scope of this chapter. For the current purpose, I am content with offering a somehow coarse observation that Confucian norms for RN-justification are assumed to be some features of the world and hence very reliable. And the reliability of these norms is further guaranteed by the reliability of the Sages as norm-providers, which is assumed in nearly all typical Confucian narratives. Hence, from a typical Confucian point of view, it looks a bit pointless to ask questions like "Are the norms mentioned in D-1 are internal factors or external factors?", since norms themselves are already assumed to be features of the external world on the one hand, simultaneously

represented in the Sages' minds on the other. Due to the same reason, it is also pointless to categorize the D-1 narrative either as an internalist or an externalist theory, given that the Confucian Sages are supposed to be able to overarch the internal-external gap. Surely critics of D-1 do have rights to cast doubts on the "magic powers" possessed by these sages, but the main task of this chapter is just to epistemologically reconstruct what Confucians intend to say, rather than defend their stance.

Sixth, since the notion of RN-justification is stronger than that of "being merely true", it looks weird for a Confucian to say that there are cases in which one can be justified in believing something which is untrue. More generally speaking, skeptical scenarios accommodating the possibility for systematically separating truth from justification cannot be compatible with the Confucian traditionalist picture of the world, according to which it does not make any sense to conceive a world wherein the traditional norms do not hold. In this sense, Confucians, if they could be brought to the round table for discussing some typical contemporary epistemological issues (the Gettier problem in particular) would not like to take the assumptions making all of these debates possible in the first place, namely, "truth" and "justification" are two separate necessary conditions for knowledge. Hence, the RN-justification-based epistemological approach will provide us a freshly new vision of the Gettier-problem-like epistemological issues, although to flesh out this vision is definitely requiring much more space than this chapter could offer.

Some other critics may still contend that the RN-notion of justification, unpacked as D-1, is nothing but a variant of evidentialism (Feldman and Conee 1985), according to which S is justified in believing proposition p at time t if and only if S's evidence for p at t supports believing p. But a few distinctive features of D-1 make it deserve an independent label. Unlike evidentialism, which leaves a lot of room for specifying "evidence" and the "supporting-relationship", D-1 eludes both problems by further dividing the target belief p into three parts: a function $R(x)$, a set of norms encapsulated in $R(x)$, and an argument a. Hence, being "evidence of $R(a)$" can be easily defined in terms of "being instantiations of norms encapsulate in $R(x)$"; accordingly, the "supporting relations" could be defined in terms of the instantiating relations.

Critics of D-1 may still wonder how one can avoid "the problem of induction" by using this template. For instance, no evaluating subject can know everything about, say, Arthur, hence, his currently acquired descriptions of Arthur may be a small sub-set of the representations of all of his behaviors. More importantly, in practical life, observers may have collected conflicting reports concerning one's behaviors; some of them may fit the norms of a "good king", and some may not.

An easy solution to this problem is to concede that "the rectification of names" is a degree concept in the sense that expressions like "Arthur is *in a considerable degree* rectified under the name of *KING*" are acceptable.

Such degrees could be measured, say, by introducing Bayes' theorem to calculate, say, the probability of A (here "A" means is a set of certain actions conducted by Arthur) under the condition that he is a good king or the probability of his being a good king when A is given. But I will not try to develop D-1 in this direction in the remainder of this chapter. This is not only because I am not entirely satisfied with the probabilistic treatment of inter-belief relations (cf. discussions in section 5 and 6) but also because there are other challenging cases that D-1 adherents should face immediately.

4. How to Develop the Existing Model to Handle More Complicated Beliefs

Surely there are many beliefs the logical forms of which are more complicated than $R(a)$. Consider the following instance:

> S_1. It is *not* the case that Arthur is a good king.

This is a case wherein the target belief of the rectification operation is itself negative. Since the original version of D-1 mainly focuses on how to justify a positive belief, some re-working of D-1 is needed here in order to make it applicable to S_1. S_1 can be accordingly further analyzed as the *disjunction* of two sentences:

> S_1a. Arthur is a "non-existent person", or: $NEP(Arthur)$.
> S_1b. Arthur is "no-good-king", or: $NGK(Arthur)$.

Since both "non-existent person" and "no-good-king" are treated as integrated predicates in S_1a and S_1b, S_1 could be thereby paraphrased as a disjunction of two positive beliefs, each of which could be made to be fitting the pattern of $R(a)$ again. Accordingly, whether Arthur could be rectified under the name of the S_1a-predicate NEP or the S_1b-predicate NGK basically depends on whether currently acquired descriptions of Arthur could instantiate norms encapsulated in these predicates. As to how to explicate norms encapsulated in the S_1a-type predicates, the recipe is to represent these norms in terms of normative features of the most typical *defeater* of the existential assertions of the relevant type of objects. (For instance, historians may have consensus on what kind of evidence could be *normatively* viewed as a defeater of an existential assertion of a certain historical figure.) As to how to explicate norms encapsulated in the S_1b-type predicates, the most straightforward way is to find a non-negative predicate that is synonymous to the S_1b-type predicate and then turn to explicate the norms imbedded in this new predicate (e.g., the norms of "no-good-king" could be accordingly replaced by norms of "bad king").

Some readers may wonder why introducing the S_1a-part of the analysis of S_1 is necessary, since it seems that a non-existent king (or a king who only "exists" in the legend) could still be fitting the criteria of being a good king. But as I have mentioned in the last section, being RN-justified is a notion stronger than that of being true, hence, from a typical Confucian point of view, it looks unacceptable to separate the existential assertion of an exemplary historical figure from the RN-justifiedness of his deeds. This is somehow analogical to theological thinking as the follows: for a Christian, it does not make any sense to deny the existence of God on the one hand and to rectify what He did on the other, since the name of God should embrace both His existence and His other divine properties. Symmetrically, when Gu Jiegang (顾颉刚, 1893~1980), the leading Chinese historian of the so-called Doubting Antiquity School, bravely questioned the historicity of the myth related to the Era of Three Sovereigns and Five Emperors, i.e., a supposedly golden age whose existence had scarcely been doubted by Confucians, Gu's attempts, as Ursula Richter (1994) points out, inevitably strengthened the voice of the antitraditionalist movement that undermined the authority of Confucianism in the first half of the 20th century, although his own intention to be an "antiquity doubter" was only based on his scientific interests.

So much on S_1. Now we may turn to S_2:

S_2. Some people are Ford-owners.

S_2 could be rephrased as S_3 in the light of first order predicate logic:

S_3. For at least one x and at least one y, if *Person*(x) and *Ford*(y), then *Possess*(x, y).

S_3 actually involves a binary relation between "some people" and "Ford", which looks more complicated as "$R(a)$". But the satisfying conditions of the justifiedness of S_3 could still be formulated in the light of D-1. Or more specifically:

According to D-1, S is justified in believing S_3 *iff* all the following 3 conditions are satisfied:

(i) There is at least one object whose actually acquired descriptions instantiate the norms of a person;
(ii) There is at least one thing whose actually acquired descriptions instantiate the norms of a Ford;
(iii) All the actually acquired descriptions of the relationship between that person and that Ford instantiate the norms of the "possession-relationship". (The normative requirements mentioned in this context may be met by, say, the existential assertion of a receipt, that of a driving license, or something like that.)

Thus, it does not look too bold to assert that the RN-justification of any meaningful belief could be handled in the D-1-way, if some recursive constructions based on D-1 could be properly provided, although to prove this assertion in the across-the-board manner definitely requires a more demanding project.

5. Why Is the Foregoing Template of Justification Interesting?

The Confucianism-inspired idea on justification, as reconstructed in preceding sections, deserves an independent niche in contemporary epistemology due to the following reasons.

First of all, it has a better explanation of why justifications can be efficiently executed than coherentism could do. (Here we assume that coherentism has more adherents than foundationalism within the internalist campaign nowadays.) Coherentism can be generally defined as the claim that a belief p is justified iff it is within a coherent belief system. However, how to define "coherence" is a complicated issue in the literature, and the recent tendency is to define it in probabilistic ways (of this type or another). Since the technical differences among these probabilistic definitions are not relevant to the main concern of my argument, we will just take one typical definition as an example (Olsson 2002):

$$c(B_1, \cdots B_n) = \frac{Prob(B_1 \wedge \ldots \wedge B_n)}{Prob(B_1 \vee \ldots \vee B_n)}$$

Surely there are competing definitions of coherence like Shogenji (1999), but each of them will bring about the heavy computational burden, say, the conjunctive or the disjunctive probability of all beliefs, or even the probability of each belief within the system. But the epistemological problem here is: Since most people do not have introspective experience of having ever taken such a burden in the process of justifying most beliefs, probabilistic coherentism cannot explain why justifications conducted by humans are mostly not so resource-demanding. (And even if coherentists intend to describe how the cognitive system works independent of the subject's introspective experience, the burden problem would not be thereby solved but only removed to another level.)

Another related problem: given that "x is coherent with y" is a symmetrical relation, to say that a belief to be evaluated (like "My ring is gold") is coherent with a norm (like "Gold should be heavy") is equivalent to saying that the norm is coherent with the belief to be evaluated. However, since coherentists typically intend to define "justification" in terms of coherence, the forgoing sentence implies that the norm could be justified by the belief to be evaluated. This implication looks unnatural

on the one hand and makes the computational burden even heavier on the other (since it brings about new tasks of justifying norms).

The D-1-solution to the first problem is quite simple. According to D-1, only beliefs of the following types are to be involved in the process of justification: (a) They are about the referents of the saturated parts of beliefs, say, descriptions of the person who is called "Arthur"; (b) They are exhibiting the normative properties implied in the unsaturated parts of beliefs, say, beliefs related to norms of being a good king. Or in another way around, given that the evaluated belief is "$R(a)$", beliefs satisfying condition (a) surely have taken "a" as their shared arguments, whereas beliefs satisfying (b) have taken "$R(x)$" as their common functions. Commonalities either in the a-part or in the $R(x)$-part consequently downgrade the scale of computation and thereby make the resulted inferential pathways accessible to introspection, which could be only supported by a limited capacity of memory.

The D-1-solution to the second problem is even simpler. According to D-1, the justifiedness of norm-expressing beliefs should always be assumed, so there is no need to justify them again. Hence, the burden of justifying them will no longer be there.

But could norm-expressing beliefs be viewed as "basic beliefs" in the fundamentalist sense (if we do not confine "basic beliefs" to beliefs merely encoding first-personal sense-data privileged by cognizers)?

Arguably no. Norm-expressing beliefs are infallible in D-1 basically due to the consideration that they have been warranted in an externalist manner, and no such externalist considerations could be accommodated in a fundamentalist framework. As to the motivation to involve externalist factors here, such a move is basically inspired by semantic externalism (cf. Putnam 1975's twin earth scenario), in the narrative of which the semantic determinations of, say, what water should be, are exactly what D-1 holders expect to see under the label of "epistemic norms embedded in the name of *WATER*". Moreover, when rephrased *epistemologically*, semantic externalism is tantamount to the idea that beliefs attributing certain semantic properties to certain objects are *justified* iff the attribution is licensed by some external authorities, and they are epistemologically "external" in the sense that (a) the belief-holders do not always have explicit beliefs about what these authorities actually are and how they work; (b) there could be a supplementary causal theory about how the mechanism embedded in these authorities causes norm-expressing beliefs explicated in D-1. To develop the D-1-narrative in this direction will definitely make it more externalism-oriented. But the resultant theory will still keep distance from typical externalist theories like reliabilism (Goldman 1979), since it still says *a lot* about how the internalized pathways of justifications are influenced by the internal semantic structures of beliefs. Or in another way around, such a narrative still allows a very detailed

analysis of the mental process of justifying a certain belief-*token*, whereas reliabilism can only provide a very general story about how a general *type* of beliefs could be warranted by virtue of how they are causally produced.

6. Further Discussions

There are two assumptions underlying my research that should be revealed now.

One of them is that a theory of justification predicting that the process of justification requires fewer psychological resources is more preferable to a competing theory predicting the conversed situation, *ceteris paribus*. This assumption is backed by my meta-epistemological observation that epistemology cannot be patently conflicting with findings in psychology. Given this assumption, especially given that "the limitations of mental capacities" is a widely accepted assumption in cognitive psychology (cf. Simon 1991; Gigerenzer 2000), epistemologists should accordingly explain why their theories are human-applicable rather than some theoretical fictions merely applicable to computing machines with entirely different physical configurations than human minds. And my Confucianism-inspired theory of justification is preferable to coherentism mainly due to this consideration.

Another assumption is that justifications cannot be executed on the propositional level alone. If it is executed also on the level of terms, then the overlapping of certain terms between two beliefs, say, p and q, can offer a quick explanation of why the justifications of p and q are relevant to each other, whereas the probabilistic explanations of the same *explanandum* are typically more complicated and unrelated to psychological reality. But how to formalize the process of justification on the level of terms is a further problem needing to be solved. Hitherto I have been using the Fregean "saturatedness-unsaturatedness" dichotomy to explain how justifications could be moved onto the term-level. However, this is not the only technical solution, needless to say the best. It is noteworthy that other term-centered modelling attempts have resulted in fertile achievements in both psychology and AI (like Quillian 1967; Baader et al. 2007; Wang 2006). In the light of these new tools, I may expect some refined versions of our Confucianism-inspired model of justification, although to flesh them out one by one is already beyond the purpose of this chapter.

Acknowledgments

Notes

1. Throughout the chapter, the names of historical figures in Chinese history will be presented in the following sequence: surname first, then his or her own name.

2. The 24 characters are: "孔子智（知）道之易也，易易云者，三日。子曰：此道之美也，莫之造也。", and the picture of relevant bamboo slips is presented on the website of *China Daily* (www.chinadaily.com.cn/culture/2017-01/13/content_27945631_5.htm). My tentative translation of them is: Confucius knows the nature of Dao as the principle of change, and he repeatedly talked about this principle for three days. He said: 'The splendidness of Dao straightly lies in this, which is incomparable by anything else'.

3. This point is especially true of the Chinese phrase "知道" (zhī dào). Although in modern Chinese, the combination of the two characters means "(to) know" in English, in classical Chinese in the era of Confucius, this combination is actually semantically equivalent to *two* words in English: "(to) know" as a propositional attitude and the philosophical term "Dao" as its object. Hence, even "知道" in classical Chinese has a grammatical form of "V+N". Therefore, it makes no sense to add a further object clause following "知道" in classical Chinese. Surely the verb "知" (zhī) could be used independently, but it is still not natural enough to make it leading an object clause rather than a term. A more usually seen practice in ancient literature is to make it leading a pronoun "之" (zhī), referring to a state-of-affair, which is usually represented by another separated sentence in the same context. By the way, the lack of object clauses following "知" may also explain why the notion of "truth" is so marginal in the ancient literature in China, since "truth" is usually used to make a higher-order evaluation of what is encoded in object clauses.

4. The English translation I am citing here is taken from Slingerland (2003).

5. The English translation of *Xunzi* I am citing here is taken form John Knoblock (1994).

6. As for instance, from the perspective of Xun Quang, the correlations between names and reality were authorized by "the Later Kings" in the remote history, and confusions were produced by people who began to doubt the validity of these correlations and hence attempted to name everything in their own manner (cf. *Xunzi* 22.1b~c).

7. Surely the Confucians should have the intellectual capacities or virtues for realizing that the reality could be unfitting the norms on the one hand and motivations to change the reality on the other. In this sense, the notion of RN-justification undeniably has an ingredient of virtue epistemology. But unlike the typical virtue epistemological narrative, here "virtues" are partly defined in terms of capacities of representing some internal processes like the introspection of the reality-norm relationship, hence, the whole narrative is still internalism-oriented.

8. The name "GRW" is taken from the first letters of three leading scientists who proposed this theory. Cf. Ghiardi et al. (1986).

9. Due to the complexity of modern quantum mechanics, it may be a quite controversial issue on what "name" should be considered when a candidate theory is to be RN-justified. But it is still possible to bring the stories on quantum mechanics into a broader picture of RN-justification. To be more specific, basing on John Bell (2004: 181)'s summarization of the diversity of candidate quantum theories and Peter Lewis (2016: 179–182)'s reformulation of it, I can identify at least five different criteria for choosing candidate quantum theories, each criterion of which could be abbreviated as a norm-encoding "name": (1) "simplicity" (of the fundamental ontology); (2) "wave"

(-centered narrative); (3) "particle" (-centered narrative); (3) "determinism" (-based metaphysics); (4) "locality" (of the causality); (5) "holism" (-based narrative). Accordingly, for instance, Bohm's (1951) quantum theory is justified in terms of "holism" but unjustified in terms of "locality". It is unjustified in terms of "simplicity" also, given its ontological acceptance of wave-particle duality, and due to this duality, whether this theory is justified in terms of particle/wave/determinism would be controversial. The same analysis in the light of RN-justification can be applied to other quantum theories as well.

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4 Testimony, Credit, and Blame

A Cross-Cultural Study of the Chicago Visitor Case

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1. The Chicago Visitor Case

In this chapter we are concerned with the Chicago Visitor case. We examine this case through empirically investigating the possible cross-cultural difference of responses to this case from Taiwanese and American participants. Our chapter has a number of aims. Our first aim is to investigate whether it is intuitive that the protagonist in the Chicago Visitor case has knowledge. Our second aim is to investigate whether it is intuitive that the protagonist deserves credit for the truth of his belief in the case. Our final aim is to address a lacuna present in the debate regarding the case, as well as in the broader debate on testimonial knowledge, virtue epistemology, and credit. This lacuna concerns the extent to which, if any, the protagonist would have been blameworthy had his testimonial belief been false and the broader question of the blameworthiness of agents with false testimonial beliefs. In addressing this lacuna we set out why we believe that this is an area worthy of consideration, and, by drawing on our survey results, we consider the intuitiveness of the claim that the protagonist in the Chicago Visitor case would have been at fault had his testimonial belief turned out to be false. Our cross-cultural study will then help investigate these issues by showing the robustness of the relevant intuitions within each of our participant groups and by comparing the intuitions across the two groups. Finally, we suggest the factors that account for the results we observe.

Let us first begin by presenting Jennifer Lackey's (2007: 352) case:

CHICAGO VISITOR: Having just arrived at the train station in Chicago, Morris wishes to obtain directions to the Sears Tower. He looks around, approaches the first adult passerby that he sees, and asks how to get to his desired destination. The passerby, who happens to be a lifelong resident of Chicago and knows the city extraordinarily well, provides Morris with impeccable directions to the Sears Tower

by telling him that it is located two blocks east of the train station. Morris unhesitatingly forms the corresponding true belief.

While Lackey (2008) has developed her own sophisticated account of testimonial knowledge, the case is presented as one in which it is simply intuitive that the protagonist gains knowledge. What is noteworthy about the case for Lackey (2009, 2007) is that, although knowledge is gained, that the knower's belief is true is not creditable to the knower. The protagonist may have chosen an adult, and perhaps would have discriminated further to some extent if appropriate, but still it seems that if someone deserves credit for the truth of his belief, it is the testifier. Morris owes his true belief about how to get to the Sears Tower to the testifier. For Lackey the example challenges the credit thesis of knowledge or the Credit View. In other words, the case is presented as challenging the claim that knowledge is true belief which is creditable to the believing agent.

As such, the significance of the example doesn't stop there. By challenging the Credit View, the example also challenges prominent accounts of the nature of knowledge in virtue epistemology. The thought that motivates the Credit View is that when an agent gains knowledge, rather than say a mere true belief or justified true belief, the truth of their belief is down to their ability or competence. This is why it makes sense to say that they deserve credit. If, however, there are cases in which the agent doesn't deserve credit for the truth of her belief, then it seems that there are cases in which knowledge involves having a belief the truth of which is not down to one's ability or competence. If this is right, then it's not just the Credit View that is challenged but also prominent virtue epistemological accounts of the nature of knowledge.

2. A Response

There have been a number of responses to the Chicago Visitor case. In this chapter we will focus on John Greco's response. Greco is a defender of an influential virtue epistemological account of knowledge, which is challenged by the Chicago Visitor case. Examining the debate concerning the case enables us to explain the significance of our survey.

On Greco's (2009, 2010, 2011) account of the nature of knowledge, knowledge is true belief because of the exercise of ability.[1] The "because" here is understood in terms of explanatory salience. In other words, in cases of knowledge, it is an agent's exercise of ability that explains the truth of belief. This is in contrast to standard Gettier cases in which although there is an exercise of ability and a true belief, the truth of the belief is not because of, or explained by, the exercise of ability.[2] In a Gettier case, such as Chisholm's (1977) Sheep in the Field case, despite there being an exercise of ability, it is simply a matter of luck that the

protagonist's belief turns out to be true. After all, in the Sheep in the Field case it is simply a matter of luck that there is a sheep behind the sheep shaped object that led the protagonist to form the belief that there is a sheep in the field.

Greco's (2010: 81) response to the Chicago Visitor case is to question whether the case really amounts to a case of knowledge at all. He asks us to imagine two possibilities. The first possibility is that Morris is not a reliable testimonial recipient. The second possibility is that Morris is a reliable testimonial recipient. We don't know which of these is true of Morris in the Chicago Visitor case. This is a problem because whether Morris is a reliable testimonial recipient is key to determining whether he has knowledge and whether he is creditable for the truth of his belief. In other words, Greco expresses scepticism that we can say whether Morris has knowledge in the case as it is described.

Greco holds that if Morris is an unreliable testimonial recipient, then he doesn't have knowledge. Furthermore, if he is an unreliable testimonial recipient, then it really is simply a matter of luck as to whether he ends up believing truly. If this is right, then of course Morris isn't creditable for the truth of his belief. If Morris in the example is a reliable testimonial recipient, however, then Greco grants that Morris has knowledge.[3] Greco continues, however, that if Morris is indeed a reliable testimonial recipient, then Morris is creditable for the truth of his belief. If this is right, then the case doesn't pose a problem for the Credit View or virtue epistemology.[4]

Greco acknowledges the problem that the case poses to the Credit View. One of the attractions of the Credit View was supposed to be that it was a powerful predictor of knowledge. In other words, it told us that if an agent deserves credit for the truth of their belief, then they have knowledge. As indicated in the previous paragraph, Greco's position is that we can't tell whether the agent is deserving of credit for the truth of their belief in the Chicago Visitor case. Still, even if that's not clear from the case, isn't it right that it has to be the testifier who deserves credit for the truth of Morris's belief? After all, Morris wouldn't have gotten a true belief without him. Greco's response is to grant that even if Morris is a reliable testimonial recipient, the testifier would still be deserving of credit. He denies, however, that the testimonial recipient's credit is swamped by the credit that is due to the testifier. In other words, Morris still has a true belief that is creditable to his cognitive agency. That another agent helped Morris or made it easy for Morris doesn't mean that Morris doesn't deserve credit for the truth of his belief. On this point Greco draws a sporting comparison. In a game of football, a teammate can provide an almost impossible pass that makes scoring a goal relatively easy. Nevertheless, if you score the goal because of the exercise of your ability, rather than say a goal resulting from the ball simply hitting off you without you knowing anything about it, then you

deserve credit for the success. The same point applies in the Chicago Visitor case.[5]

There are a few important points to take from this. One response to the Chicago Visitor case is that it is unclear whether it is a case of knowledge, rather than it being an intuitive case of knowledge. Another response is that it is likewise, and expectedly if one holds the Credit View, unclear that it is a case in which the agent is not deserving of credit for the truth of her belief. Finally, there is a rejection of the claim that this is a case in which credit for the truth of belief and knowledge come apart. Of course we can empirically test whether it is intuitive that this is a case of knowledge,[6] as well as whether it is intuitive to participants that this is a case in which the protagonist is not deserving of credit for the truth of his belief. Also, by comparing test results of responses to these two questions, we can check whether there is a discrepancy between the intuitiveness of the knowledge attribution in the case and the intuitiveness of the protagonist being deserving of credit for the truth of his belief in the case. Through investigating these issues with Taiwanese and American participants, we can not only draw some conclusion on the basis of participants' intuitions but we can also check for the cross-cultural robustness of those intuitions and, with respect to possible cultural variance, infer which factor affects people's intuitions.

3. Blameworthiness

In this chapter we present evidence that bears on a debate in contemporary epistemology. In this way we seek to make a contribution to an existing ongoing debate. However, we also used this opportunity to examine the blameworthiness of an agent whose testimonial belief is false in what we call the Bad Chicago Visitor case. By "Bad Chicago Visitor" case, we mean a case that is like the Chicago Visitor case, except that the testimony and testimonial belief are false. So in such a case the testifier is still a long time resident who knows the city very well. We leave open why the testifier's testimony is false. Perhaps the testifier is lying for some reason; perhaps the testifier has a momentary mental lapse. This isn't our concern. Our concern is whether intuitively an agent is blameworthy for having a false testimonial belief in such a case. By examining this question we mean to contribute to the debate regarding belief formation, maintenance, and relinquishment and agent evaluative concepts. The relationship between blame and belief is of interest to us in a number of more specific respects. We're interested in whether there is a symmetry or asymmetry between credit and blame. In other words, we're interested in whether cases in which an agent can potentially be deserving of credit are also cases in which an agent can potentially be deserving of blame.

The thought is that there is a prima facie case for thinking that if you're in the running for credit that suggests some sort of doxastic responsibility.[7]

If there is some sort of doxastic responsibility such that one can be cred-itworthy for the truth of one's belief, then it seems natural to think that one can also be blameworthy for the falsity of one's belief in cases in which there is doxastic responsibility. There are a number of possibilities as to what determines the blameworthiness of a belief. One could have a deontological conception such that what matters is how one forms one's belief. For example, one might think that what matters is whether the agent's belief is justified. On this view, blameworthiness in cases of dox-astic responsibility will track whether one's belief is unjustified. Another possibility is a consequentialist conception whereby blameworthiness in cases of doxastic responsibility tracks whether one's belief is false. Of course more nuanced versions of these positions are also possible. We're not proposing to settle the matter here, rather we're interested in gather-ing evidence as to what is intuitive in this matter.

For example, if participants found it intuitive that the protagonist in the Chicago Visitor case has knowledge but that he is not blameworthy for the falsity of his belief in Bad Chicago Visitor case, then, assuming the coherence of their intuitions, we would take this to be some evidence in support of the claim that (against the consequentialist conception of blameworthiness) participants' intuitions regarding blameworthiness of belief don't track whether that belief is false. Of course other explana-tions that account for some or all of the participant responses would still be possible, although theoretically this explanation seems natural. This is just one example. We shall consider more hypotheses in the next section.

4. The Survey

In order to advance the debate, we decided to conduct a survey that would be provided to a group of Taiwanese participants and a group of the US participants. Our survey included two questions that arise from the con-temporary debate on the Credit View. The first of these questions is sim-ply whether a protagonist in a Chicago Visitor-type case has knowledge. The second of these is to what extent, from not at all to completely, the protagonist is creditworthy for the truth of his belief in that case. The last question in our survey arose from our interest in furthering philosophical thought on the points raised in the previous section. That question essen-tially described a Bad Chicago Visitor case and asked to what extent, from not at all to completely, the protagonist is at fault for their false belief.

Note that, in addition to these three questions, at the start of the sur-vey we asked a question to test whether the participants have at least some of the fairly standard knowledge intuitions. The question is simply whether an agent has knowledge in a case in which it would be com-monly accepted in the literature that the agent does have knowledge. Having this question was important in order to narrow possible explana-tions for the survey results to a range that is more of interest to us for our purposes.

The authors had different hypotheses regarding what the results would show. Mi and Mizumoto expected cultural differences to lead to some differences in results. Ryan, however, did not expect any significant differences in results. Mi and Mizumoto, both of whom have East Asian backgrounds, expected widespread acceptance that the Chicago Visitor case is a case of knowledge, while Ryan, who has a Western background, didn't expect very strong intuitive support for the claim that there is knowledge in the Chicago Visitor case.[8] On the basis of this difference, Mi and Mizumoto conjectured that there might be cultural variance in intuitions. The thought is that differences in results might be explained by the claim that Western culture is more individualistic and that East Asian culture is more collectivistic. This claim is supported by R. Nisbet and his colleagues, who write that "[the ancient Chinese sense of personal agency] was a sense of reciprocal social obligation or collective agency" (Nisbett et al. 2001: 292). They then go on to write about the relevance of this for today:

> There is substantial evidence that the social psychological differences characteristic of ancient China and Greece do in fact persist. China and other East Asian societies remain collectivist and oriented toward the group, whereas America and other European-influenced societies are more individualist in orientation.
> (*ibid.* p. 295, see also Nisbett 2003; Talhelm et al. 2014)[9]

While examining this thesis in depth here would distract us from the primary purpose of the chapter, we lay out some suggestions as to what bearing this thesis might have on our results.[10] One possible hypothesis, then, in the present context is that Taiwanese society is a collectivistic society and that a feature of a collectivistic society is that the exchange of knowledge is a collectivistic endeavour and that once knowledge is gained, it can easily be shared with other members of the same group. In other words, it's not that the individual recipient has to do any special work in order for her to gain knowledge. On the other hand, an individualistic society holds that an individual must do more than simply believe testimony in order to know (i.e. the content of the testimony known by the testifier). Thus, if this hypothesis is correct, even though the Chicago Visitor case seems to satisfy good conditions, the US participants can be expected to be more cautious about attributing knowledge to the protagonist than Taiwanese participants.[11]

It is not clear whether there is any cultural difference that bears on the attributions of the protagonist's creditworthiness. Still, in relation to the question about knowledge, we may consider two hypotheses. One is that creditworthiness attributions track knowledge attributions. The other hypothesis is that creditworthiness tracks justified belief. What is tracked in the former hypothesis entails true belief but not in the latter hypothesis. If the former hypothesis is correct, we may expect that those

who attribute knowledge to the protagonist tend to give more credit for her true belief, while those who deny knowledge tend to give less credit for it, but that is not necessarily the case if the latter hypothesis is correct. In the Chicago Visitor case, if it is denied that the protagonist has knowledge while no less credit is given to the true belief of the protagonist, that data will constitute evidence in favour of the latter hypothesis, as long as the protagonist's true belief is considered justified.[12]

As for the blameworthiness of the protagonist in the Bad Chicago Visitor case, one of the authors (Mi) thought that the cultural background of the participants would be a salient factor. More specifically, he expected Taiwanese participants to be much more likely to attribute blame for the false belief in the Bad Chicago Visitor case due to cultural difference. As an indicator of this cultural difference, he draws our attention to a famous passage from the *Analects*,

> The Master said, "To tell, as we go along, what we have heard on the way, is to cast away our virtue".
>
> (Analects, 17:14)

This suggests that telling something (true or false) that is based on an unreliable source of testimony is blameworthy. To quote one more passage from another Confucianist, Xunzi,

> A wise man will not spread rumours and gossip (without any justification).
>
> (Xunzi, 27:101, author (Mi)'s translation)

With this supplemental passage, the previous quote from Confucius suggests that one is unwise if he believes what he has heard from rumours or gossip. The recipient in the bad case is responsible for believing the false information. One may of course retort that the same is true in the West, or anywhere else. The difference is therefore expected to be a matter of degree, as is the case with cultural differences generally.

Still, we may also elaborate the point again by the difference between a collectivistic society and an individualistic society, which is compatible with the influence of Confucianism. In a collectivistic society, greater importance is given to defending the community from the epistemic threat of falsity (which is even a matter of maintaining or losing virtue) than to denying the epistemic fault of an individual for believing falsely (in order to protect the status of individuals) in a case such as the Bad Chicago Visitor case. The more individualistic society can be expected to have a reverse ordering. If so, in the collectivistic society, more fault (than in the individualistic society) can be expected to be attributed to the person who has a false belief, a potential epistemic threat to the community, even if the belief is formed on the basis of testimony, while in the individualistic society the casual chain of the error is tracked to find the true generator of the error, and therefore a greater share of responsibility for the false belief

of the individual is attributed to the testifier than to the testimonial recipient.[13] Thus in the present study, those who accept the described assumptions may predict that Taiwanese participants will attribute more fault to the protagonist than the US participants in the Bad Chicago Visitor case and that the US participants will attribute more fault to the testifier.

But independently of this possible cultural difference, we may also think of two hypotheses about blameworthiness. One is that blameworthiness tracks unjustified belief, according to which those who think that the belief of the protagonist is not justified tend to attribute fault to the protagonist, therefore judging her to be blameworthy. The other hypothesis is that blameworthiness tracks false belief. Whether or not they judge the belief of the protagonist to be justified, the protagonist is judged to be at fault and therefore blameworthy, because her belief is false. If, therefore, the protagonist is judged to be *not* at fault at all in the Bad Chicago Visitor case, that will count against the latter hypothesis.

Finally, we may hypothesize the relation between the praiseworthiness and blameworthiness in the present study. One natural hypothesis is that there should be a symmetry between praiseworthiness and blameworthiness. Those who attribute/do not attribute much praiseworthiness to the protagonist in the Chicago Visitor case also attribute/do not attribute much blameworthiness to the protagonist in the Bad Chicago Visitor case. Call this the Symmetry Hypothesis. One of the authors (Ryan) hypothesized that the Symmetry Hypothesis holds only for those who attribute knowledge to the protagonist in the Chicago Visitor case. He holds that those who do think it's a case of knowledge will think that credit is (even if shared with) mostly down to the testifier, and that this same group would be unlikely to attribute all or even most of the blame to the testimonial recipient in the bad case. The assumption here is that those who regard the Chicago visitor case as a case of knowledge accept the crucial role that the testifier plays in the recipient getting knowledge and the permissibility of the recipient believing what he says. Call this Restricted Symmetry Hypothesis. If either of these hypotheses holds, then naturally we may expect praiseworthiness to track justified belief and blameworthiness to track unjustified belief or praiseworthiness to track knowledge and blameworthiness to track false belief.

Method

Taiwanese participants comprised of undergraduate students from Soochow University in Taipei.[14] The participants who contributed to the full survey comprised of 47 males, 70 females, and 15 participants who filled neither box. The participants ages ranged from 19 to 22.[15] The US participants were recruited via Amazon Mechanical Turk. 100 participants were recruited, where the mean age of participants was 32.9 years old. 59 participants were male, while 41 were female. (We shall discuss the difference of the age factor later when we discuss the results.)

The survey questions presented to the US participants were as follows (see Appendix for the questions presented to Taiwanese participants):[16]

> **Control question:** John believes that it's raining outside, but it's not raining outside.
> Does John know that it's raining outside?
>
> Yes　　　No

Those who answer yes will not have their answers to the later questions included in the results as they seem to lack the concept of knowledge that we're working with.

> **Q1:** Having just arrived at the train station in Chicago, Jenny wishes to obtain directions to the Sears Tower. She looks around, approaches the first adult passerby that she sees, and asks how to get to her desired destination. The passerby, who happens to be a lifelong resident of Chicago and knows the city extraordinarily well, provides Jenny with impeccable directions to the Sears Tower by telling her that it is located two blocks east of the train station. Jenny unhesitatingly forms the corresponding true belief.
> Does Jenny know that the Sears Tower is located two blocks east of the train station?
>
> Yes, she does.　　　No, she does not.

> **Q2:** How much credit does Jenny deserve for having a true belief about how to get to the Sears Tower? (Choose an option between 10 and 0, where 10 means full credit, and 0 means no credit.)

> **Q3:** How at fault would Jenny be if her belief about how to get to the Sears Tower had turned out to be false? (Choose an option between 10 and 0, where 10 means fully at fault, and 0 means at no fault.)

The survey questions provided the Taiwanese participants used a contextually familiar alternative to the Chicago Visitor case. Rather than describe a scenario in which a visitor is looking for a famous building in Chicago, the contextually familiar alternative described a scenario in which a visitor is looking for Taipei 101, a famous building in Taipei. The basic structure of the case, however, is the same as the Chicago Visitor case. Also, for our final question concerning the Bad Chicago Visitor case we sought to indicate at fault rather than blame. We did this because of the difficulty of finding a suitable translation of "blame" in Chinese for our purposes.[17]

Results

132 out of 153 Taiwanese participants (86%) and 89 out of 100 US participants (89%) answered "no" to the control question. Answers of only those who chose "no" to this question are reported in what follows.[18]

As for Q1, question about the Chicago Visitor case, significantly more participants answered "knows" in both the Taiwanese and the US surveys (p < 0.0001 in the Taiwanese survey, p = 0.0017 in the US survey, according to one-tailed sign test).[19]

Q1	Participant number answering "knows"	Participant number answering "doesn't know"
Taiwanese participants	119	13
The US participants	57	29

However, there was a significant difference in responses between the Taiwanese participants and the US participants (p < 0.0001, two-tailed Fisher's exact test, and effect size φ = 0.30, which means a medium size). That is, significantly *fewer* participants answered "knows" in the US survey than in the Taiwanese survey.

As for Q2, the average scores were not significantly different between the Taiwanese and the US surveys (p = 0.70, two-tailed t-test).

Q2	Scale	Participant Response (Taiwanese)	Participant Response (American)
Jenny's creditworthiness	0	8	11
	1	5	6
(0 = no credit, 10 = full	2	5	5
credit)	3	16	7
	4	13	6
	5	46	22
	6	11	6
	7	9	9
	8	14	8
	9	1	3
	10	4	5
Total		132	88
Average		4.81	4.67
95% CI		4.42–5.20	4.06–5.28
SD		2.29	2.89

On the other hand, there was a significant difference in the answers of Q3 between the Taiwanese and the US surveys (p < 0.01, two-tailed t-test).

Q3	Scale	Participant Response (Taiwanese)	Participant Response (American)
Jenny's blameworthiness	0	18	20
	1	3	6
(0 = no blameworthiness,	2	6	11
10 = full	3	10	13
blameworthiness)	4	4	7
	5	51	16
	6	9	2
	7	12	3
	8	3	2
	9	6	0
	10	10	8
Total		132	88
Average		4.79	3.45
95% CI		4.31–5.27	2.82–4.09
SD		2.79	2.99

If we compare the responses of Q2 to those of Q3, the average scores of the Taiwanese participants were not significantly different (two-sided t-test, $p = 0.94$), while those of the US participants were significantly different (two-sided t-test, $p = 0.0067$). As a post-hoc analysis, we compared the answers of the US participants who answered that Jenny knows in Q1 to the answers of the US participants who answered that Jenny does not know there. (We did not do the same analysis for the Taiwanese data, since the number of those who answered that Jenny does not know in Q1 was too small to be meaningful.)

The US participants who answered that Jenny knows				The US participants who answered that Jenny does not know		
	Q2	Q3			Q2	Q3
0	6	13		0	5	7
1	5	4		1	1	2
2	3	6		2	2	5
3	7	12		3	0	1
4	6	3		4	0	2
5	11	10		5	10	6
6	2	2		6	3	0
7	7	1		7	2	2
8	5	0		8	3	2
9	2	0		9	1	0
10	3	6		10	2	2
Total	57	57		Total	29	29
Average	4.561	3.386		Average	4.828	3.552
SD	2.87	2.99		SD	3.06	3.12

Neither the difference of responses to Q2 nor that of responses to Q3 between two groups was significant (Q2: $p = 0.70$, two-tailed t-test, Q3: $p = 0.81$, two-tailed t-test).

Also, we failed to find any meaningful correlation between Q2 and Q3 in either Taiwanese data and the US data.

Relation bet. Q2 and Q3 (Taiwanese)

$y = 0.1052x + 4.084$
$R^2 = 0.0078$

● Credit-Fault

········· Linear (Credit-Fault)

Relation bet. Q2 and Q3 (English)

$y = 0.1377x + 2.8113$
$R^2 = 0.0178$

● Credit-Fault

········· Linear (Credit-Fault)
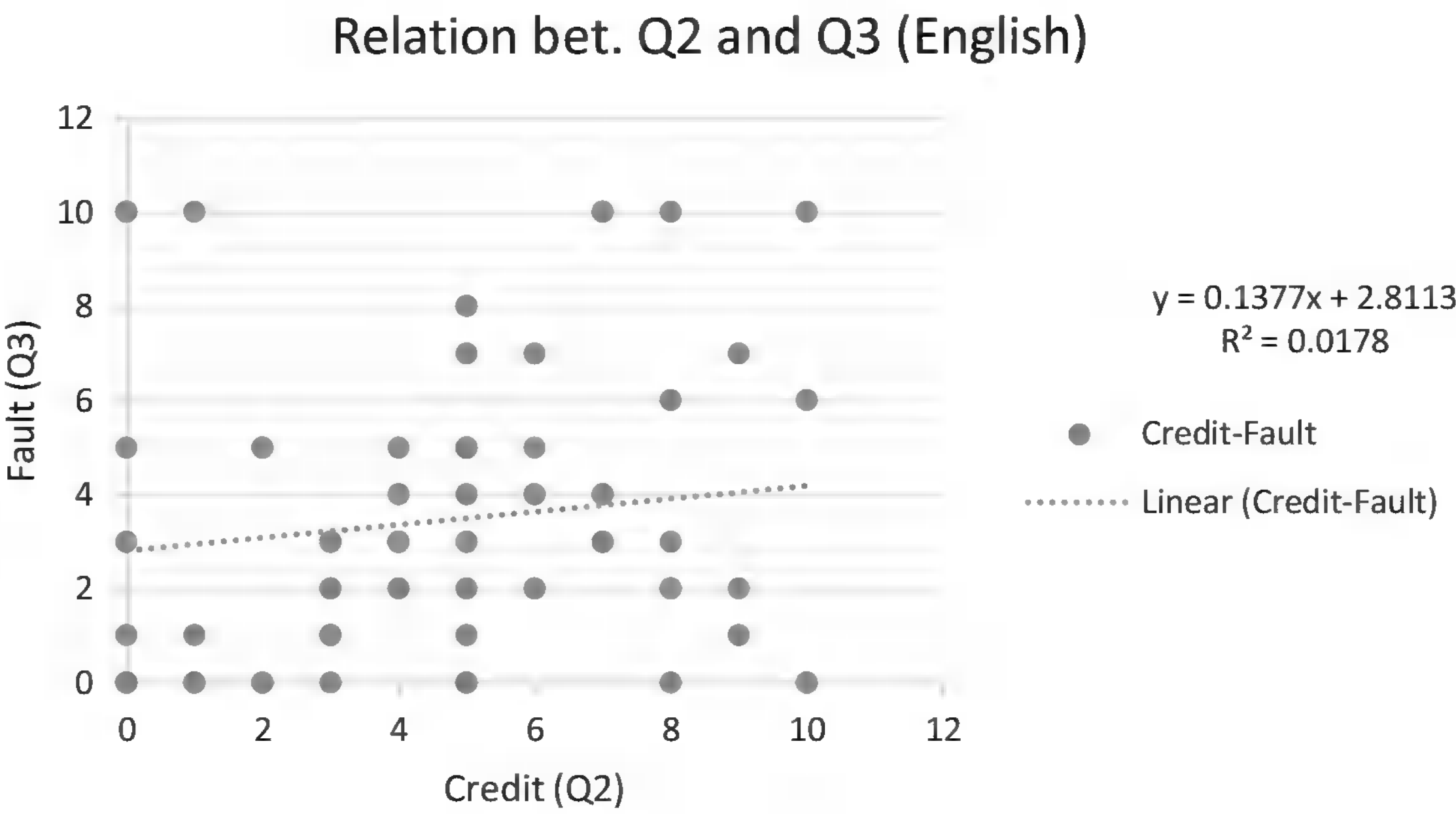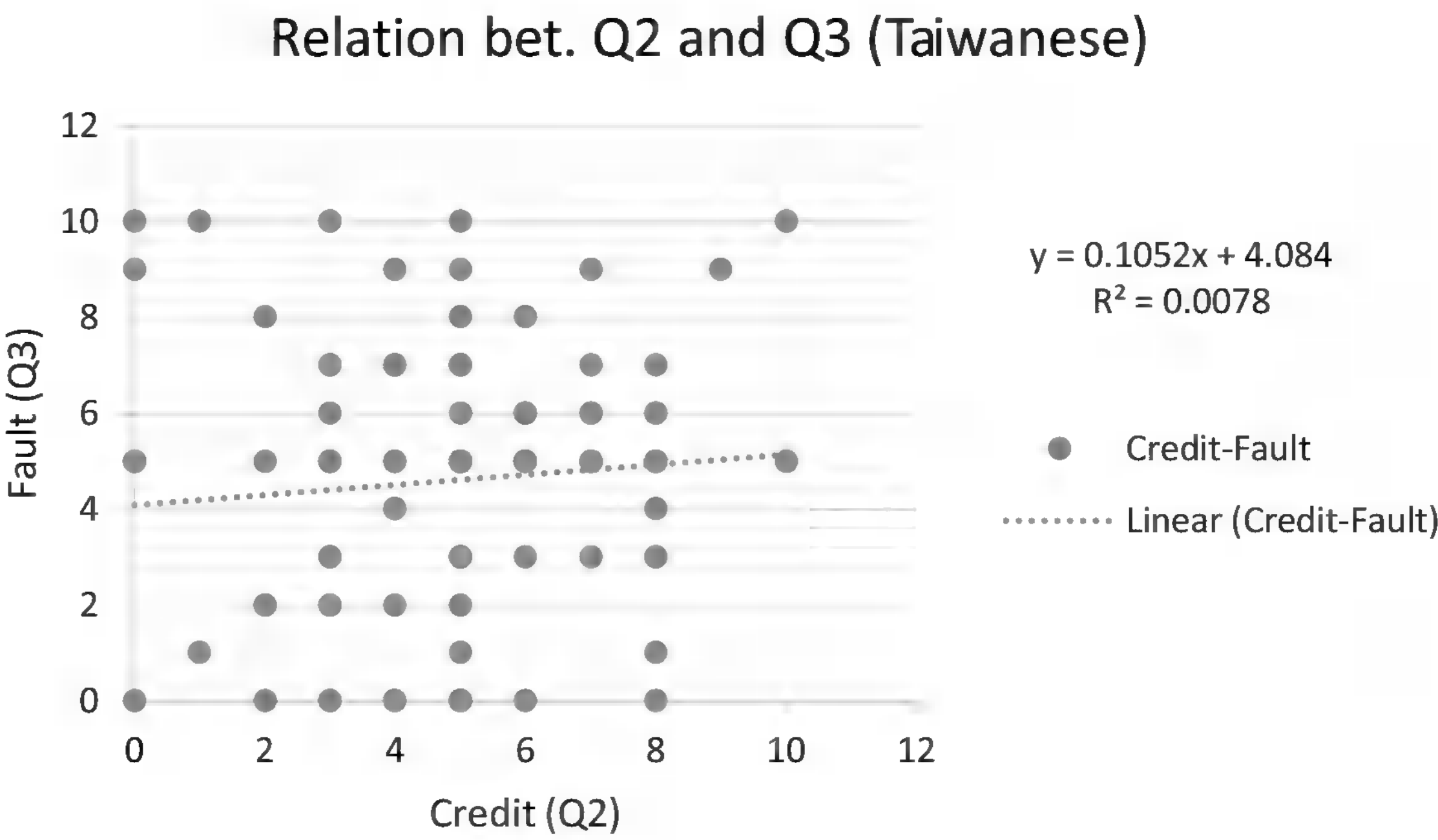
Also, even restricted to answers of those who chose "knows" in Q1, we found virtually no meaningful correlation at all.

Restricted to "know" answers (English)

$y = 0.1269x + 2.807$
$R^2 = 0.0148$

● Series1

········· Linear (Series1)
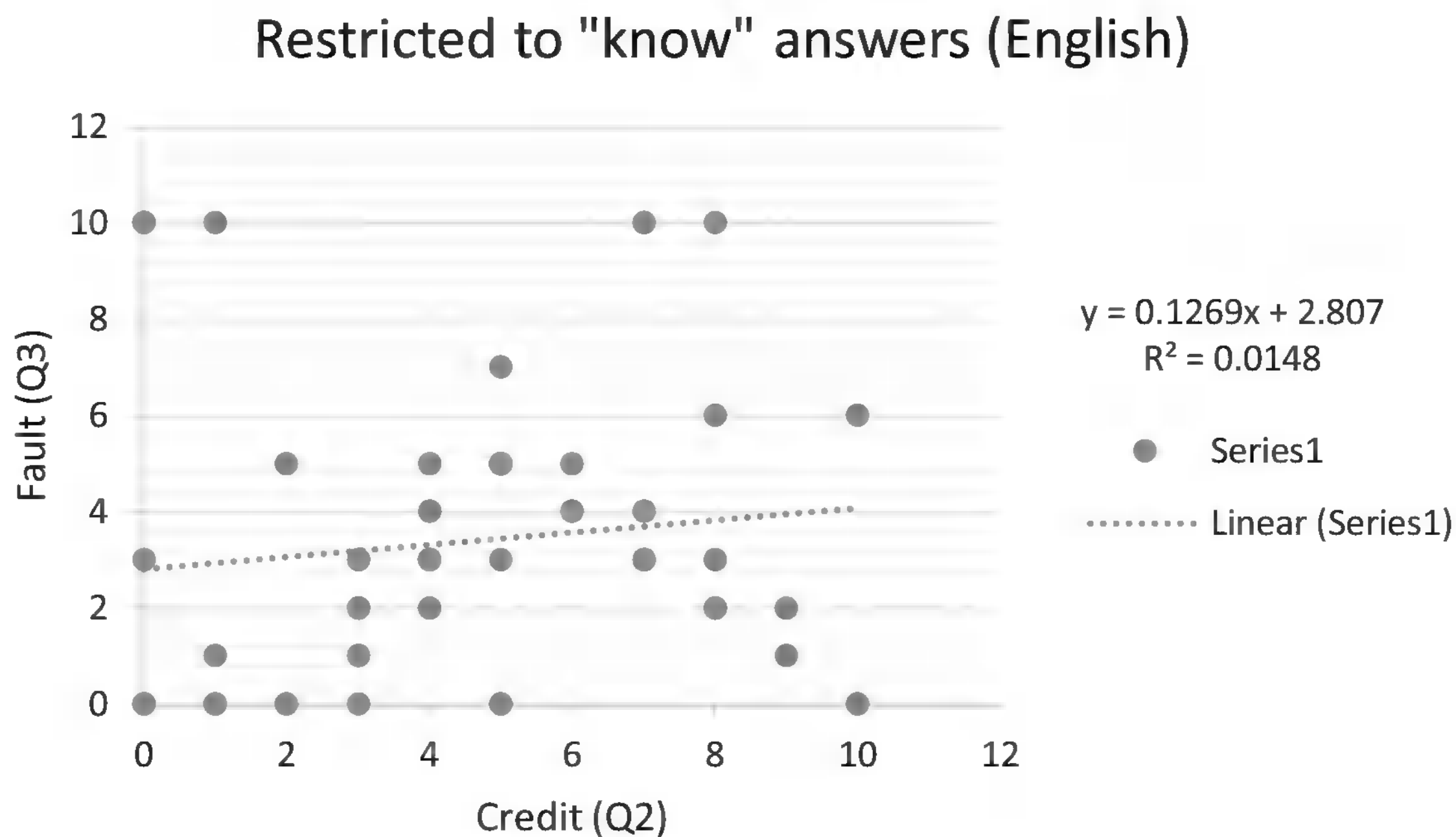
Discussion

Roughly 90% of Taiwanese participants endorsed the view that there is knowledge in the Chicago Visitor case, whereas only 66% of US participants concurred. Although the fact that significantly more participants, both Taiwanese and Americans, answered that the protagonist "knows" in Q1 is some evidence in favour of the use of the example by Lackey as a case of knowledge, the case does not enjoy overwhelming support as a case of knowledge among US participants. Indeed, as noted, there was a significant difference in knowledge attribution rates between the Taiwanese and the US participants. This supports the hypothesis that cultural difference leads to differences of knowledge attributions in cases of testimonial knowledge. Perhaps there is a more influential ideology of individualism and maybe individual self-sufficiency among US participants that results in somewhat more widespread intuitions favouring epistemological individualism and reductionism.[20] This is something that should be examined in future research.

Note that, since we used undergraduate students for the Taiwanese survey, the age factor was not well-controlled. Thus, the difference here may be due to the age factor, rather than the cultural factor. We therefore conducted logistic regression analysis on the US data. It turned out that the age factor was not a significant predictor of the knowledge attribution (p = 0.15, the Wald test).[21] Note also that the regression analysis showed that the age factor was correlated neither with the credit scores of Q2 (df = 1, p = 0.92) nor the fault scores of Q3 (df = 1, p = 0.76).

The vast majority of Taiwanese participants (72%, 95 out of 132) found that the protagonist was partially creditworthy for her true belief,

having a score from 3 to 7 as to the degree to which the protagonist was creditworthy. The largest single figure was 5, which more than a third of the total number of participants for the question provided. Interestingly few from the total said that the protagonist deserved no credit and few indicated that they thought the protagonist deserved complete or almost complete credit. The responses from US participants were similar. 50 out of 88 participants (57%) provided responses in the middle range—from 3 to 7, including 22 who answered with the figure 5, which was again the largest single figure. Somewhat more participants thought that the protagonist deserved no or very little credit, 22 (25%) answered in the 0–2 range, than thought that the protagonist deserved all or almost all of the credit, 16 (18%) answered in the 8–10 range. This result supports Lackey's use of the example as one that challenges the claim that in such a case the credit for the truth of the protagonist's belief is down to the protagonist. Nevertheless, participant responses suggest a level of creditworthiness that is not reflected in the tone of Lackey's paper, a tone that suggests that the protagonist is deserving of little credit. The 95% confidence interval of the average scores of both the Taiwanese and the US participants included the middle figure, 5. And the fact that there was no significant difference between them suggests the cross-cultural invariance and therefore robustness of the intuition about this issue. Another point worth noting is that it was not established whether credit tracks knowledge rather than some component of knowledge.

The majority of Taiwanese participants (65%, 86 out of 132) answered that the protagonist was partially at fault in the Bad Chicago Visitor case in which the testifier's testimony is false. These participants gave a score from 3 to 7 as to the degree to which the participant was at fault. Again, the largest single figure was 5, which more than a third of the total number of participants provided for question 3. Interestingly, there was a significant statistical difference between the Taiwanese responses and the US responses to this question. US respondents were significantly more likely than Taiwanese participants to attribute no or almost no fault to the protagonist in this case. 37 participants (42%) answered within the 0–2 range. In fact, 0 was the most chosen figure. On the other hand, just 10 participants (11%) answered within the 8–10 range. The results suggest a cross-cultural diversity of thinking about this question from US and Taiwanese participants. This difference in fault attribution among US and Taiwanese participants is in line with Mi's expectation.

We cannot find any meaningful correlation in responses of the Taiwanese participants between Q1 and Q2 nor between Q1 and Q3, since the rate of the "not know" answer in Q1 was too small (less than 10%). There is, however, a similarity of responses to Q2 and Q3 in the Taiwanese survey, in the sense that there was no significant difference between the average scores of responses to Q2 and Q3, whose 95% confidence intervals both crossing the middle figure, 5. The obvious interpretation of

this is that the Symmetry Hypothesis is correct, and the Taiwanese participants view testifiers and testimonial recipients as having shared responsibility for the truth of a testimonial belief. The protagonist deserves partial praise for the truth of her belief in the good case, but she deserves partial blame for the falsity of her belief in the bad case. However, unfortunately, we did not find any correlation between responses to Q2 and Q3 in the Taiwanese survey either. This suggests that the judgments of Taiwanese people about praise attribution and blame attribution are in fact not based on any principle or any (implicit) theory either. Their intuitions about these matters are mutually independent. Still, this does not prevent us from constructing a theory in which the Symmetry Hypothesis holds (given that the point of theory construction is not necessarily the theorization of the actual folk practices but may also be a rational reconstruction of them or production of a normative principle that the folk should follow). Such a theory is plausible for Taiwanese people given the results we obtained, whereas the same theory should be counterintuitive, or require at least an additional explanation, for American people. Note also that another implication of the Taiwanese data is that the responses undermine the claim that it is intuitive that blameworthiness tracks false belief.

The responses of US participants, especially the breakdown of the responses to Q2 and Q3 according to the responses to Q1 (whether Jenny knows or not), show that there isn't a tight link between answers to Q1 and those to Q2, nor between answers to Q1 and those to Q3. However, the Symmetry Thesis does not hold here, there being no symmetry of responses to the second and third questions. For US participants at least, the fact that one is praiseworthy in a testimony case when things go well does not automatically mean that one is blameworthy when things go badly, which was shown by the lack of correlation between answers of Q2 and those of Q3. Also, the responses of US participants to Q3 again threaten the thesis that blameworthiness tracks false belief, if not unjustified belief. But if we assume (plausibly) that the protagonist does have a justified belief in the Bad Chicago Visitor case, given that there was some support for attributing fault to the protagonist in that case, the thesis that blameworthiness (at least relatively speaking) tracks unjustified belief is not supported by the data of Taiwanese responses. Blameworthiness for them may depend on an external factor that is beyond the direct control of the testimonial recipient. The results are therefore consistent with the hypothesis based on the cultural difference.

Other interpretations for the differences between Taiwanese and US participant responses are of course possible. But note that, as we saw in the data tracking participants' answers of the US participants, there was no significant difference between those who think that Jenny doesn't know and those who think Jenny does know in the answers of the credit and fault question. This gives us reason to think those US participants who think that Jenny doesn't know aren't the cause for the difference

that we see between US and Taiwanese participant responses to question 3. Note also that the same data suggests that even the Restricted Symmetry Hypothesis does not hold for the responses of US participants.

5. Conclusion

We believe that we have some very interesting results that bear significantly on a lively area of debate within epistemology. That the Chicago Visitor case doesn't enjoy overwhelming support as a case of knowledge among US participants is itself interesting, given the place of the example in the literature. The cross-cultural differences, however, are also of significant interest, with regard to blame and the link or lack thereof between answers to questions 2 and 3.

Our results offer general support for Lackey's challenge to the Credit View. However, participant responses suggest support for the view that the protagonist in the Chicago Visitor case deserves somewhat more credit than she suggests. Besides, our results show that to a sizeable minority of US participants the case is not a case of knowledge. The similarity of responses among Taiwanese participants for the question regarding credit and the question regarding blame suggest support for a view that in a case like the Chicago Visitor case the amount of credit one gets is only partial but also that, if it's a bad case, the amount of blame one gets is only partial too. Interestingly, the responses of US participants differed significantly in that many participants indicated no or only little blame. We have suggested several hypotheses that seem to be supported by the data we obtained here. They are, however, by no means conclusive. Still, we can at least say that our findings warrant and require further attempts at future empirical investigations (including conceptual replication) into these issues.

Notes

1. Greco's position has changed over time. See Greco (2012). His position discussed here is the one that is most relevant for our purposes in this chapter.
2. See Ryan (2014) for an argument that Greco's difference in approach to standard Gettier cases and non-standard Gettier cases, such as the Fake Barn County case, is problematic. The point made is that if Greco wants to retain his response to non-standard Gettier cases, that abilities are environment-relative and that the protagonist may not have the relevant environment-relative ability, then he also has to apply such a response to standard Gettier cases such as the sheep in the field case.
3. Of course the reliability of the reliable testimonial recipient must be from a cognitive ability of that agent.
4. See Mi and Ryan (2018) for criticism of Greco's treatment of testimonial knowledge.
5. Duncan Pritchard (2010: 60–61) challenges the appropriateness of Greco's analogy and instead provides an alternative sporting analogy, which he takes

to help show that Greco's response doesn't succeed. Pritchard instead holds Greco to be committed to the view that, for an agent to gain knowledge, that agent must be primarily creditable for the truth of their belief. He argues that the protagonist in the Chicago Visitor case is not primarily creditable for the truth of his belief and yet he has knowledge. As such, Pritchard views that the Chicago Visitor case as a successful counterexample to Greco's account of the nature of knowledge.

6. We use "intuitive," but the reader should note that we are simply asking participants to provide answers to our survey. There is no monitoring nor means of discerning whether their responses are intuitions. Nevertheless we are typical in describing such responses as intuitions.

7. In this chapter we're interested in cases of synchronic doxastic responsibility rather than cases of diachronic doxastic responsibility.

8. He also didn't expect very strong intuitive support for the claims that the protagonist is deserving of credit and that the protagonist is blameworthy for belief in the Bad Chicago Visitor case.

9. Of course, we should be cautious about too simplistic an understanding of the cultures, and some psychologists deny this kind of generalization of the West/East difference. One concern is that such comparisons may overlook differences within each of the respective cultures. For the difference within Chinese culture, see Talhelm et al. (2014). There are also differences within Western culture that may bear on the usefulness of such generalizations, for example differences between Catholic and Protestant traditions. Nisbet himself addresses this kind of qualification, pointing out the historical changes within West and East, respectively (Nisbett et al. 2001, footnote 4). However, even if simplistic understanding of the cultural difference is questionable, as Nisbet and colleague say, "there are nonetheless broad and deep differences between East and West with respect to the collectivist-individualist dimension" (*ibid.*), and in particular it is undeniable that there are cultural differences between Americans and Taiwanese.

10. Our chapter provides empirical data on a keenly debated case within epistemology and as such is of interest regardless of whether one accepts the collectivistic/individualistic thesis. That the results, as we shall see, do indeed show a difference between Taiwanese and the US participants, however, suggest the relevance of cultural difference hypotheses such as the one advanced by Nisbett and others.

11. The moves made here of course mirror the debate in the literature as to whether testimonial belief enjoys default justification or not. (Adler 2017).

12. Such a case would also be a challenge to virtue reliabilitists. Note however that some virtue epistemologists doubt that the protagonist exercises an ability or competence that explains the truth of their belief (see the earlier part of this chapter). Thus, it is open for such virtue epistemologists to claim that in the Chicago Visitor case the protagonist's belief is not *justified* either.

13. One might suggest here that in a collectivistic society the blame itself can be collective. But the point of a society's being collectivistic is to protect the whole even at the expense of the status of individuals. If the whole society is blamed in order to protect individuals, then the society is not collectivistic.

14. Prior to participating in the survey the participants were provided a consent form standard for such research at Soochow University. Consenting participants were provided and filled out a form recording their sex and age.

15. This is a normal age range for undergraduate students at universities in Taiwan.

16. In the Taiwanese survey there was also a request in English for participants to circle the extent to which they thought Jenny deserved credit and the extent to which they thought she was to blame. The response rates to these English language requests was low and for this reason the data has been omitted. We suspect that the low response rate was down to the requests being made in English rather than Chinese.

17. In the Taiwanese survey, the consent form, background information form, and the survey itself were in Chinese. Some English language translations were also provided. Classes at Soochow University are almost entirely carried out in Mandarin. For this reason it was anticipated that all the participants would be speakers of Mandarin. Mi performed the translations into Chinese for the Taiwanese survey, oversaw the completion of the survey by participants, and was responsible for the compilation of data from the Taiwanese survey. Mizumoto provided the results of the US survey.

18. It should be noted, however, that a small number of US participants who answered "no" to this question failed to provide answers to all or some subsequent questions. This is why the recorded total participant answers in subsequent questions is less than 89.

19. The p-value in this one-tailed sign test means here the probability of this number or more participants answering "knows" if we assumed that people were *not* more likely to answer "knows" than "not know" at all.

20. Although such an answer might seem prima facie plausible, it would have to be squared with the weaker attributions of fault to the protagonist provided by US participants.

21. This does not assure that the Taiwanese people of older age would respond the similar way as young people (undergraduates) did in this survey. However, even if the responses of older Taiwanese turned out to be similar to the US counterparts, the difference of the young people between Taiwan and the US would still remain to be explained.

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Appendix: Chinese Questionnaire

前題：
如果小明相信外面正在下雨，但是其實外面並沒有在下雨。請問小明
　「知道」外面正在下雨嗎？
答：

＊ ＊ ＊ ＊ ＊ ＊ ＊ ＊ ＊
Shane 的親身經歷：

Shane 第一次來到台北，剛抵達台北車站。他想要去台北 101 大樓，
　於是問了一　位路過的女士。剛好這位女士是台北人，熟知台北市
　的交通地理位置與街道建物名稱。她給了Shane詳細的指引訊息，
　Shane 也依據這位路人的訊息，順利 的到達台北 101 大樓。

1.　Does Jenny know how to get to the Sears Tower?
1.　請問，　Shane 在這個例子中，最後他知道如何到達 101 大樓嗎？
　　答：

2.　How much credit does Jenny deserve for having a true belief about
　　how to get to the Sears Tower? (Circle which option below you think
　　is the right answer.)
　　　All; most, less than most but more than a little, a little, or no credit.
2.　在 Shane 獲得如何抵達 101 大樓的正確訊息之過程中，除了歸功於
　　這位路人之外，請問他自己是否也有一部分功勞呢？（多少？　10
　　為最多，　0 為毫無功勞。）
　　答：

3.　How at fault would Jenny be if her belief about how to get to the
　　Sears Tower had turned out to be false? (Circle which option below
　　you think is the right answer.)
　　　Completely at fault, mostly at fault, less than most but more than
　　a little at fault, a little at fault, or not at all at fault.
3.　萬一，　原來的例子中，這位女士路人所給的訊息是錯誤的，
　　而 Shane 也因此迷了路。請問，　Shane 自己應該負責嗎？他自己要
　　負多大責任？（ 10 為絕大部分的責任，　0 為無須負責。）
　　答：

5　Linguistic Strategies Against Epistemic Injustice

Elin McCready

1. Introduction

Belief acquisition mostly happens by rational processes or at least by processes that are rationally justifiable. The acquiring of information via perception can be justified by referring to such things as reliable processes or mechanisms; learning via inference can be justified by the validity of particular logical deductions. But much of our learning happens via testimony, where the situation is much more variable. Different testimonial agents are reliable to different degrees, and it can be difficult for potential believers to separate the trustworthy from the questionable.

One method that can be used to do so is to isolate properties of the testimonial agent that are deemed relevant to the question of reliability. Such judgements are (in the abstract, at least) both rational and reliable. Philosophical work on the topic often makes reference to such properties and to such judgements; however, as recent work in social epistemology has made clear, these properties are like other bits of epistemological practice in that they don't exist in a vacuum and are influenced by other social factors in a way that is sometimes confounding for the intended result and sometimes downright pernicious. In particular, in cases where social inequalities factor into the kind of properties agents take to be relevant for judgements about epistemic reliability, general societal prejudice against particular social groups can play a role in agents' determinations of reliability in a way that systematically downgrades (or upgrades) the testimony of those groups. This situation has been dubbed testimonial injustice by Fricker (2007); it will be the topic of the remainder of this section, where more detail both on judgements of reliability and how social factors play into them will be discussed, in §2.

This situation is obviously problematic, both from a moral perspective, in that certain groups of people are systematically disadvantaged (even those whose perspectives are privileged, as we will see in the next section) and also from an epistemological perspective, in that our beliefs and trust in testimony fails to track truth as well as they might. What can be done about the issue? Most discussion of this question is stated from the hearer

side, for after all it's the hearer that's making the problematic judgements; the advice given is usually to be careful about what properties you take to be relevant, to be mindful of societal prejudices and of personal privilege, and not to take things for granted. This is good advice. But what can speakers do to combat testimonial injustice? It doesn't seem optimal to just (as it were) sit back and wait for one's interlocutors to arrive at a state of social awareness. What strategies might be effective? And what do people actually do? This problem is not a new one, though discussion of it is new; testimonial agents have been dealing with it for a very long time. §3 considers some methods for the reassumption of epistemic authority, some unique to the case of testimonial injustice but others more general. The conclusion, unfortunately, is somewhat pessimistic. The tools discussed in §3 are effective to a degree, but their use requires both subtlety and the (at least tacit) cooperation of the hearer and so are nothing like panaceas for the problem of testimonial injustice.

2. Epistemic Authority

How does one acquire or fail to acquire epistemic authority? There are essentially two views on the matter of belief in testimony: that of Hume, who advocated charitably believing one's interlocutors in general barring good reasons not to, and that of Reid, who was skeptical about policies about general belief in testimony but advocated trusting individuals if they had properties making them appear worthy of trust (Hume 1977; Reid 1997). Both views have their supporters and detractors in the more recent philosophy literature (see e.g. Coady 1992; Lackey and Sosa 2006 for discussion). These views, while interestingly different philosophically, tend to make similar predictions when the exception cases are fleshed out, as the reasons and counter-reasons for belief are similar in each case.

For a representative view, consider the theory of McCready (2015a), where the worthiness of testimonial agents to be believed with respect to truth-conditional content comes down to two factors. The first is 'reliability': an agent's past performance on truth-tracking in testimony is examined, yielding a probability of truthful communication; then, on the assumption that future performance will be similar, this probability can be used to judge whether the individual is likely to be telling the truth in the current case of testimony as well. Formally, this amounts to viewing communication as a sequence of iterated acts of information transmission, where each act is viewed as a selection of a piece of content to communicate and an evaluation of its truth. The result is essentially a repeated game, which can be analyzed using the standard toolkit of (repeated) game theory (Mailath and Samuelson 2006): taking the ratio of properly truth-tracking communicative acts to the total number of communicative acts yields a probability of reliability.[1]

The formal mechanisms used also allow limiting the computation of reliability to certain kinds of prior cases, such as testimony about particular topics or in particular settings. Communicative acts in this setting can be viewed as triples $<\phi; V; \Delta>$. The first is simply propositional content; the second is the truth-value of that content (possibly indeterminate; McCready 2015a uses a three-valued logic); the third element is a set of relevant facts about the context. This allows for determining whether a speaker is reliable for a particular case. For instance, suppose that a speaker s is consistently reliable about matters concerning the operation of firearms, but her factual knowledge of political matters is spotty or peppered with falsehoods ('liberal's view of standard Fox News viewer'). We can use the third element of the tuple to restrict attention to firearms or to politics, in order to determine the likely reliability of a particular utterance of the speaker (modulo a theory of aboutness, cf. Yablo 2014).

But this kind of computation doesn't exhaust what is needed to determine reliability. None of these techniques will work for cases where the testimony is the first made by that agent, because there is no history of communicative interactions to draw on in trying to determine reliability. For cases of initial interaction, other kinds of probabilities must be used. These are derived from other properties of the agent, such as their appearance, profession, the context of utterance, and so on. Since Hume and Reid make use of roughly similar properties to judge whether or not agents should not be trusted or should be trusted (respectively), the McCready-style theory takes a kind of intermediate position: a mixed stance blending the Humean and Reidian views.

As already mentioned earlier, however, this kind of judgement, where various (external) properties of the communicative agent are utilized to judge reliability, is not at all infallible. There is lots of room for error. This is so even in the computation of reliability based on past performance, where faulty memory or calculation can yield wrong results, as can limiting inspection to the wrong kind of topic cases. But in the initial case judgements, the use of properties to judge reliabilities is even more problematic, because, as is well-known, it is unfortunately common for people to associate the wrong kinds of properties with testimonial reliability or unreliability. This is precisely one of the issues tagged with the name epistemic injustice.

The test case that this chapter primarily addresses is gender. It's a common observation, both in 'real life' and in the literature on this topic (e.g. Fricker 2007; Dotson 2011; McKinnon 2016), that the testimony of women is downgraded with respect to that of men. Anecdotally, women tend to be disregarded and their knowledge viewed as inferior to that of men, whether explicitly or only in practice. We will see some experimental evidence of this based on linguistic factors in a moment, but first let us briefly consider why such a thing might arise in the first place.

The notion of gender is complex and controversial (see George 2016; George and Briggs 2016 for nuanced discussion). In this chapter, I don't want to take a position about the nature of gender or its effects, but it will be useful to have something to go on with. Consider the view of Witt (2011), a kind of essentialist view. According to Witt, ordinary human individuals have three distinct aspects: the human aspect, corresponding to the possession of human body and physical features; the 'person' aspect, the possession of first-person knowledge and perspective; and an aspect as a social individual, i.e. the possession of a societal role integrating one into social structures. For Witt, gender is essential to social individuals. According to her view, gender is a 'mega social role': a 'bundling' mechanism to unify a somewhat disparate set of social roles and obligations. She compares this to telic roles in Aristotle, for whom the various properties of chairs relate to the fact that they are made to sit on. The precise content of social roles is dependent on various aspects of the context, the situation, the culture, and so on, though for her they relate to the basic functions of reproduction.[2] Such social roles can also be associated with other kinds of social norms and expectations.

This complex of roles and normative factors results in gender stereotypes. Gender stereotypes are associated with the complexes of properties relating to the mega social roles of the gender in question, i.e. various social roles, social obligations, and properties that are (viewed as) likely held by individuals given that they hold the gender role in question. These can be viewed as personae as developed in the game-theoretic analysis of Burnett (2017), where the personae individuals signal with their various linguistic choices correspond to sets of properties, in a way based on the work of Penelope Eckert and others in 3rd Wave sociolinguistics (e.g. Eckert 1989). The way in which this likelihood is spelled out can be probabilistic in a simple Bayesian manner (cf. McCready and Winterstein 2017a, 2017b) or can be more sophisticated, as in Burnett's game-theoretic setting.

Here is a possible way to spell out stereotypes associated with masculinity and femininity that gives a window onto how they might end up associated with epistemically unjust scenarios. I should emphasize that I'm not endorsing either Witt's metaphysics or these stereotypes: I am introducing them here purely for purposes of illustration. With that said, stereotypically, men are often taken to be logical, decisive, competent, physically strong, active, sporty, and interested in functionality, while women are often stereotypically taken to be emotional, passive, nurturing, physically weak, indoor, and interested in appearance.

These standard stereotypes can impact credibility judgements. The stereotypical properties in the previous paragraph relate fairly directly to decisions about credibility. Judging someone competent leads to assigning them a higher credibility than incompetence, which means that men might be given more credibility than they deserve on the basis of these stereotypical

properties; conversely, judging someone to be emotional on the basis of a stereotype, as in the previously mentioned stereotypical view of women, could easily result in the downgrading of anything they say that is based on inference or rational conclusions. These are quite general instances of epistemic injustice. For a more specific case, judging someone to be interested in sports on the basis of a stereotype ('men like sport') yields a higher credibility for that person on issues of sport than might otherwise be justified.[3]

Thus we see that it is at minimum plausible that stereotypes like the ones mentioned earlier have an impact on judgements about epistemic authority and reliability. This situation highlights the abstract nature of the reliability model of McCready (2015a): the mechanisms proposed there for making initial reliability judgements are formally proper, but they depend on the selection of the right properties for input to the model that determines initial probabilities of reliability. Given the right properties, one can arrive at epistemologically proper conclusions, but, as the literature on epistemic injustice shows, it is easy to fall into error about what properties to select. This kind of case highlights once again the distinction between normative and descriptive epistemologies: the properties one ought to select are not the same as those that epistemic agents turn out to select in practice. The formal model itself, of course, is powerful enough to show what is happening in each kind of case.

But can the conclusion about epistemic injustice be verified experimentally? That is, does this kind of case really arise in genuine practice? McCready and Winterstein (2017a, 2017b) report on an experimental investigation that shows that it indeed can. The leading idea was to see whether the gender of the source of testimonial evidence influenced judgements about its reliability. Experiments were carried out using materials like the following.

(1) A and B are friends. A wants to buy a power drill and is thinking about which one to buy. A wants a high performance drill to perform heavy duty work.

   a.   A: I wonder if this one is a good choice.
   b.   B: I have a friend who says he knows a lot about power tools, and he says this model is really powerful.

Here, A is contemplating the purchase of a drill: this is traditionally a masculine-biased topic (as confirmed by a preliminary experiment asking subjects to classify particular topics into masculine, feminine and neutrally biased domains). One might expect men to be viewed as more reliable on such topics and women about feminine-biased topics; also, if men are viewed as more reliable in general, they might be considered more reliable on neutral topics. We checked this by varying two factors in our experiments: the bias of the topic and the gender of the source.

The latter was done by altering the pronoun in B's response in the materials. The initial experiment used he, she, and the neutral my friend; later experiments eliminated the neutral case due to potential confounds (see McCready and Winterstein 2017a, 2017b for details). The experimental results were consistent with the hypothesis that masculine sources were indeed assigned a higher degree of reliability in general. A subsequent experiment ran a related series of tests using Cantonese data. In Cantonese, gendered pronouns are not available, so instead we used masculine and feminine terms for cousin to obtain the same effect; the results were, again, consistent with a higher general reliability for masculine sources.

Observe that the form of the stimuli used in this experiment allow for two kinds of reliability to be tested simultaneously. B's friend simultaneously claims that a particular item (in this case a particular power drill) is a good choice and also makes a claim of competence—i.e. epistemic authority—in that domain.

These experiments confirm that there is indeed a bias in the determination of perceived credibility across genders: masculine-presenting sources are assigned more credibility than feminine-presenting ones. This is experimental evidence for a particular kind of epistemic injustice.

Up to now I have been discussing testimony in terms of credibility and perceived reliability of information source. How does all this relate to the notion of epistemic authority? A speaker is taken to have epistemic authority if she is taken as a source of testimony who a speaker is justified in believing, in a normative sense. This is closely related to the idea of having competence in a particular domain, as in the Competence Assumption of Sauerland (2004), who, following one interpretation of Grice (1975), takes it to be required for the derivation of conversational implicatures. Agents with epistemic authority can expect to have their testimony believed, and a listener should accept the testimony of an agent who has epistemic authority. The problem of epistemic injustice can then be restated in terms of epistemic authority rather than credibility: epistemic injustice results when the degree of epistemic authority assigned to a speaker fails to properly align with the actual reliability of that speaker. This definition is rough and likely fails to perfectly track the usage of the term epistemic injustice in the broader epistemological community. The difference mainly involves edge cases involving 'justice' per se. For instance, consider the following case.

(2) Bad Luck for B.

> A and B meet for the first time and have a conversation about a topic about which B knows nothing. Despite B's reliable appearance and A's initial judgement that he is reliable, he is consistently wrong so many times that ultimately A takes his testimony to be completely useless and stops believing him at all.

In Bad Luck for B, though B is generally reliable, he happens to have engaged in a discussion of an issue about which he is consistently wrong. Even though he should be judged only to be unreliable about that particular issue, he is judged unreliable overall due to a small and biased sample of knowledge. Does this count as a case of epistemic injustice? I think not: A has properly assigned B a degree of reliability on the basis of the truth-tracking of his communicative acts. The problem is just that his overall reliability has been equated with his reliability about a particular topic. Still, given further interaction, this situation will be remedied, because the mechanism itself is not unjust but only has encountered problems in this particular unlucky scenario. For genuine injustice to arise here, B's situation would have to be irremediable, or A would have to have been unwilling to assign a higher reliability from the very beginning.

I therefore take it that epistemic injustice is simply to be understood as the assignment of too low or too high a degree of epistemic authority on the basis of properties irrelevant to truth-tracking, possibly with an additional unwillingness to modify that degree of authority on the basis of empirical observation. We now may ask the main question of this chapter: how can an individual whose testimony is systematically discounted or downgraded attempt to overcome this situation? This question is addressed in the next section.

3. Assuming Epistemic Authority

In popular discourse, it is mostly taken as a given these days that women's testimony is systematically downgraded compared to that of men. This situation has been taken up in the philosophical literature as one instance of epistemic injustice (e.g. Medina 2012), along with other cases such as race. The work of McCready and Winterstein (2017a, 2017b) provides initial experimental evidence for the reality of this situation by showing that linguistic factors related to gender are able to influence judgements about the reliability of the information a source provides. The existence of this experimental evidence is a positive development: introducing it makes it harder to argue that the phenomenon itself is not real and need not be addressed by epistemic agents in their attempts to remain unbiased and 'just' in their evaluations of testimony and evidence and in their general epistemological behavior.

But the phenomenon in question existed long before it was noticed in the epistemological literature or arose in discussions of social justice, much less the experiments discussed in the previous section. People dealing with epistemic injustice have had to develop mechanisms for getting their testimonial content across and for overcoming bias and resistance. What kinds of mechanisms are available, and which have been used? This question is not really addressed in the feminist epistemology literature on these issues, where the discussion is more about the existence and

effects of the phenomenon. The remainder of this chapter is devoted to examining it, focusing on linguistic tools that speakers use to overcome testimonial bias. The data discussed is mostly drawn from Cantonese and Japanese, where the available tools are somewhat different from those found in English; throughout, I will compare the three languages and suggest ways in which the phenomena found in Cantonese and Japanese might have parallels in English as well.

Before turning to the data, though, we should get clear about exactly what it might be to overcome testimonial biases of the kinds we have been discussing. In principle it might be possible to overcome epistemic injustice as a whole. For the particular case of gender, one might, for example, try to induce recognition of epistemic biases resulting in injustice: i.e. via discussion and dialogue, to show an interlocutor that they systematically overvalue male testimony as opposed to female testimony. But this global strategy is time-consuming and, historically, not very effective, especially when one's main aim is just to get one's interlocutor to accept a particular proposition, e.g. that this power drill is better than that one. What is called for in a case like this is a way to get information across the bias boundary, as it were: to get one's interlocutor to accept one's testimony in the particular case at hand despite whatever biases against that testimony might be in place. The remainder of this section discusses three ways to do so, of varying effectiveness. The first is to make a direct appeal to the hearer. The second is to try to strengthen the force of one's claim by strengthening the speech act performed in such a way that it is harder to resist. The third is to adduce additional evidence for the claim. As we'll see, the second and third of these strategies are both widely adopted and, arguably, quite effective, as long as they are performed in an indirect manner via the use of not-at-issue content.

3.1 At-issue Appeals

The first way to try to regain epistemic authority is via simply attempting to re-claim it directly. One can claim authority or request belief:

(3) a.   I know all about this.
     b.   Trust me!

Sometimes this will indeed be effective, but only in cases where the speaker is in a position to request trust or to have a claim of authority believed. In other words, the speaker must already have sufficient epistemic authority to have a claim of authority judged to be authoritative. The project of directly requesting trust, then, is in a sense pragmatically self-refuting.

Is there a way around this problem? It arises because the speaker makes the request for belief on the basis of his own epistemic authority:

for an assertion to have the desired effect of inducing a belief in its hearer (Searle 1969), it must be judged trustworthy by that hearer, which in turn requires epistemic authority. This means that trying to claim epistemic authority by means of assertion already requires that epistemic authority. This is a recipe for failure. To get around it, one must try to claim epistemic authority by a means that doesn't require such authority at all.

In the recent linguistics literature, a distinction is made between at-issue and not-at-issue content (Potts 2005; Tonhauser et al. 2013). At-issue content is 'plain vanilla' semantic or propositional content. It can be thought of as the main content of (most) sentences and communicative acts. It is at-issue content that is ordinarily the object of evaluation for considerations of trustworthiness and epistemic authority. As such, at-issue epistemic authority grabs are unlikely to directly succeed in the absence of such authority. Not-at-issue content is quite various but is essentially everything that is not at issue: presuppositions, conventional implicature, expressive content, and conversational implicature, for example. Epistemic authority is relevant for evaluation of some aspects. For instance, conversational implicature has been argued to require epistemic authority (the Competence Assumption of Sauerland 2004), and presupposition accommodation occurs when a particular presupposition is not already available to the hearer (Beaver and Zeevat 2007) and can require epistemic authority when the presupposition is likely to be controversial:

(4) a.   Trump is late because his limousine broke down.
    b.   ?! Trump is late because his giraffe is sick.

But other kinds of not-at-issue content don't seem to require authority at all. Expressive content in particular tends to be a kind of meaning for which authority is irrelevant, either because the kind of content it involves is inherently subjective and thus subject to a form of first-person authority or privileged access (Mitchell 1986; Potts 2007; McCready 2010) or because it is ineffable in the sense of Potts (2007) and therefore unevaluable in truth-theoretic terms at all. This makes it highly suitable for the task of regaining or acquiring epistemic authority. Let us consider two cases now.

3.2 Speech Acts and Authority

If a speaker has epistemic authority, she can expect that her speech acts will be successful. A priest would be surprised if his baptism of a child was not accepted by the community; a person breaking a bottle of champagne across the stern of a boat and pronouncing its name would be surprised if that name failed to take; a speaker with epistemic authority performing an assertion would be surprised if her communicated content was disregarded or not accepted. This suggests that one way to

achieve epistemic authority in situations where it might be doubted is to strengthen the speech act one is performing in such a way that its chances of 'going through' are increased.

One way to strengthen a speech act (among other possibilities: see Vanderveken 1990) is to use a strengthening particle. Particles will reappear in the next section under the discussion of evidence and epistemic authority, where I will exhibit some data from Cantonese that shows the existence of this strategy; here I will focus on the case of Japanese, where a number of particles strengthening speech acts seem to exist. The main case discussed in the formal linguistic literature is *yo*. Like other discourse particles of this type, *yo* has several realizations that are distinguished by features like tone and lengthening.[4] The one we are interested in here is *yo* appearing with falling intonation, which has an insistent or declamatory quality. It is appropriately used when the speaker has reason to believe that the content she is trying to communicate will meet with resistance but she wishes to try to force its acceptance anyway. McCready (2005, 2008) gives the example of a speaker who has met with an explicit denial of a proposition but wishes to insist on its truth; in this situation, it is appropriate to utter *yo* with falling intonation, and indeed its absence is judged infelicitous.

Note the crucial fact that the strengthening of the speech act due to falling *yo* does not happen through any kind of at-issue appeal to the hearer or a 'strengthening' operator in the truth-conditional semantics. Rather, the effect of falling *yo* has been argued to arise from an expressive modification of the host proposition: specifically, it has been analyzed using a dynamic operator that induces belief revision, which comes into play via a type-theoretic semantics for expressive types (McCready 2008; Davis 2010).[5] Since this kind of operation is neither subject to denial nor to explicit deliberation on the part of the interpreter, it is ideally suited for overcoming epistemic biases; as we will see later, the strategy of avoiding at-issue discussion and appeal in favor of trying to find less direct ways of overcoming epistemic injustices is in fact a widespread strategy of natural language speakers.

Interestingly, Suzuki Kose (1997) observes that it is infelicitous for an army officer to demand an action of a subordinate using this insistent version of *yo*. Intuitively, such a speaker has no reason to insist on his speech act, for he already has the authority to expect it will be accepted. We can state this as a simple pragmatic principle:

(5) If a speaker expects that her speech act will be successful, she should not use a mechanism that tries to ensure its success.

This is pragmatically sensible: using a mechanism of this kind suggests doubt on the part of the speaker and so introduces a possibility of failure where it might not otherwise exist.

Mechanisms of this kind are useful where the speaker has reason to expect that a speech act will not be successful, as with the case of explicit denial mentioned earlier. This is precisely the case of epistemic injustice. If a speaker has reason to believe that their words will be disregarded, for example on the basis of their gender or race, it will behoove them to use any means at their disposal to have those words accepted. Given the existence of the strengthening mechanism of particles, we might expect to find them used frequently by speakers who (feel that they) are subject to epistemically unjust circumstances.[6] This prediction has not, to my knowledge, been tested, but it is a common anecdotal claim with respect to 'women's language' (*joseigo*) in Japanese that it frequently uses particles, including *yo*. Of course, these claims are normative and do not perfectly correspond to the actual situation (Yukawa and Saito 2004), but this general view of particle use by women is suggestive. We will see in the next section that, in Cantonese, while particle use is frequent for both genders despite what is claimed by normative models, the particular particles used by women have a character that relates closely to the acquisition of epistemic authority.

3.3 Evidential Authority

Cantonese, like many languages of Asia (especially tone languages: Yip 2002), has a wide range of available discourse particles, likely 30–40 distinct elements (abstracting away from considerations of tonal variation and lengthening discussed in the previous section). They have a wide range of functions including aspectual marking, mirativity, and question marking. As with Japanese normative gendered speech, Cantonese women's speech has been argued to show a much extensive use of particles than men's speech; this is shown to be false by Winterstein et al. (2018) on the basis of a corpus investigation, though there was indeed a larger use of particles by female speakers. More interestingly for present purposes, we found a bias in which particles are used by female and male speakers in assertive contexts; the masculine ones seem associated with high degrees of epistemic authority, and the feminine ones with the absence of such authority.

Two relevant particles with gender-biased usage patterns were *aa3* and *ge3* (where the numerals indicate the tone with which the morpheme is pronounced). The particle *aa3* is often described as a 'softener' of assertions and questions; *ge3* conversely indicates the strong belief and high confidence of the speaker. These particles can be given a specific analysis in terms of epistemic authority. Specifically, Winterstein et al. (2018) take *ge3* to involve only the epistemic authority (private belief) of the speaker, but *aa3* to involve the authority and beliefs of other epistemic agents in the context. This is spelled out in terms of the theory of Beyssade and Marandin (2006), who distinguish speaker commitments from

commitments that involve a call on the addressee. By default, on a Stalnaker-style analysis of the function of speech acts (Stalnaker 1978), assertions involve a symmetrical alteration in both speaker commitments and what the addressee is called on to endorse: both speaker and hearer should come to accept the proposition that's asserted. With this background, *aa3* can be analyzed as an explicit marker of this kind of symmetry, while *ge3* indicates a speaker belief but does not reference the commitments of the addressee.

The idea here is that *ge3* indicates only the commitment of the speaker without requesting the 'approval' of the interlocutor. To feel justified in using a particle of this kind, one should feel confident that a proposition one puts forward as a belief of one's own will be added to the common ground only on that basis: that is, if one's confidence seems to be sufficient justification for belief by the hearer. In other words, it is a reasonable action to use *ge3* only if one has epistemic authority. Thus, the masculine bias found with this particle can be understood from the greater degree of epistemic authority that men have in Chinese society, as seen from the experimental results presented earlier and detailed in McCready and Winterstein 2017a, 2017b.

However, we also see from these observations that women do have a way to at least attempt to address their lack of epistemic authority. Using *aa3* requests the confirmation of the hearer, so it doesn't require as much 'brute' epistemic authority, but it can still help to get information across. By indicating explicitly that the hearer's confirmation is desired, the speaker shows that he is interested in getting the hearer's take and tries to (in some sense) coopt the authority of the hearer in order to get the desired information into the common ground. This is not a substitute for epistemic equality or epistemic authority, but it is a potentially effective technique for dealing with an epistemically unjust situation. Indeed, this sort of technique, in which the speaker uses a kind of aikido-like method of utilizing the other agent's epistemic power, seems quite comparable to what is found in (stereotypically) gendered speech in English, as discussed by authors like Lakoff (2017): the extensive use of indirect phrasing, tag questions, and polite forms as compared to (stereotypically) masculine speech. To my knowledge, there is little or no discussion of such speech and its basis in epistemic injustice in terms of formal models; the comparison would be an interesting one to make.

4. Conclusion

This chapter has discussed epistemic injustice and one way of addressing the problems it produces. Epistemic injustice for the case of testimony was defined as giving a degree of credence to a testimonial source that misaligns with the actual degree of reliability of that source. Using the

model of McCready (2015a), this kind of case was shown to arise from the use of stereotypes about reliability of sources with particular properties that are wrongly deemed relevant to judgements about credibility, for example with the stereotypical association of women with emotive, illogical judgements. After providing this diagnosis and showing how it has been given some preliminary experimental evidence, I turned to the discussion of three methods for addressing the problem from the perspective of the testimonial source: direct at-issue appeals for authority, speech-act strengthening particles, and particles that alter the evidential position with which the utterance they appear in is made. I argued that the latter two classes were more effective for overcoming testimonial injustice, both because of their semantic and pragmatic effects and because of the not-at-issue status of those effects. Still, we see that the relevant strategies are not equally available in all languages. Specifically, the abundance of particles in languages like Chinese and Japanese as compared to English allows the use of the strategies discussed in the previous section, which are not generally available in English and indeed in most other Indo-European languages, at least not in the form presented here.

We therefore find that linguistic strategies for ameliorating epistemically unjust situations exist in the world's languages, at least for the case of testimonial injustice: the use of particles with speech act modifying force and the use of particles with evidential content. English speakers faced with testimonial injustice, lacking these strategies for linguistic reasons, strategically make use of others, such as the use of tag questions or suggestions. These methods of coping with testimonial injustice, though somewhat effective from an epistemological standpoint, in that they enable the proper transmission of credible information although not in a fully epistemologically transparent manner, are still insufficient in terms of genuine epistemological justice, assuming that the latter is understood as the situation where each individual's perceived credibility corresponds to their actual reliability. Given that stereotypical information plays a role in evaluating testimonial credibility, as claimed by a number of authors (e.g. Fricker 1995 in addition to the previous citations), this situation does not appear to be easily altered, for the mechanism for assigning credibilities is noisy in the absence of great attention and care to the deployment of stereotypes; in particular, it is necessary to use stereotypical information only where it is genuinely relevant to the assignment of credibility. Unsurprisingly, then, a full solution to the problem of testimonial injustice requires effort by individuals judging credibility, not only by those whose credibility is judged.

Notes

1. Acts whose truth is indeterminate, either for reasons of vagueness, inability to determine truth or falsity, or failure to satisfy relevant presuppositions, can be dealt with in various ways or simply left out of the computation entirely (see McCready 2015a for some discussion).

2. This point is highly controversial and, I think, (fortunately) inessential for what I want to use this theory for here.
3. The way in which this kind of judgement is formally derived is straightforwardly executed by examining the third element of the 3-tuples associated with communicative acts, again given a theory of aboutness.
4. See Cooke 1989 for the case of Thai and McCready 2015b for an attempt to derive the different cases from semantics for the various available features; see also Davis 2009; Oshima 2011 for the particular case of yo.
5. See Gardenfors¨ (1988); Gardenfors¨ (1992) for more on belief revision, and (Potts 2007; McCready 2010) for details of this kind of combinatoric system, as well as Gutzmann (2015) for more on expressive analyses of particles.
6. The analysis, however, is inconsistent with the claim of Northrup (2014) that yo is associated with a high degree of epistemic authority. The idea is that the person in the context with the maximal available degree of epistemic authority with respect to a proposition is licensed to use yo to mark it. If so, and if women in Japan are subject to testimonial epistemic injustice (which seems rather uncontroversial), then they should be unable to use yo; this prediction doesn't appear to be correct, as detailed in the main text.

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6   Overcoming the Linguistic Challenges for Ethno-epistemology

NSM Perspectives

Cliff Goddard

In this chapter I attempt to cover a lot of material, so inevitably the coverage will be selective. It is not exclusively a birds-eye view, because from time to time we will be swooping down to matters of fine detail, but inevitably there will be gaps and there will be leaps. Section 1 introduces the fundamental problem; how to decide on a non-ethnocentric metalanguage for ethno-epistemology, in particular, how to extricate epistemology from its current Anglocentric entanglements. Sections 2 and 3 articulate the proposed solution as it emerges from the Natural Semantic Metalanguage program in cross-linguistic semantics. Section 4 presents explications for some key words of Anglo ethno-epistemology (*knowledge, truth, believe*), resolving their meanings into simple cross-translatable words. Section 5 offers a brief treatment of some aspects traditional Australian Aboriginal folk epistemology. Section 6 contains concluding remarks.

1. "Ethno-epistemology: Compared to What?"

In a celebrated paper, the psychological anthropologist Catherine Lutz (1988) asked: "Ethnopsychology: Compared to What?" Her underlying point (one of them, in any case) was that contemporary Western psychology itself is infused with and reflects a folk psychology of its own.

Needless to say, contemporary Anglo culture also has a folk epistemology of its own, and it seems indisputable to me that Anglo English folk notions have left their imprint on theoretical thinking in epistemology—paralleling the situation in psychology and in other areas, such as moral philosophy (cf. Wierzbicka 2014a, 2014b). This contemporary Anglo folk epistemology can be broadly described as "empirical" in character and as manifesting a high degree of "epistemic caution"—an orientation that emerged from the British Enlightenment (Porter 2000; Bromhead 2009; Wierzbicka 2010).

Though originating in specialist discourses of philosophy and science, spearheaded by John Locke, post-Enlightenment epistemology has deeply penetrated ordinary English language and culture and it now shows itself

in numerous aspects of Anglo English vocabulary and usage. The linguistic profile of Anglo folk epistemology has been documented and analysed by Anna Wierzbicka (2002, 2006, 2010) in a string of publications. It includes:

(i)   Anglo cultural key words such as *evidence, empirical,* and *experience* ("the Three Big E's")—not to mention *fact* and *reality*
(ii)   English-specific epistemic verbs, such as *believe* and *understand*
(iii) a proliferation of specialised epistemic adverbs, e.g. *probably, possibly, apparently, certainly, supposedly*
(iv)   the high-frequency parenthetical *I think* . . . formula, with its specific semantics (not just "I think like this" but also, roughly, "I don't say I know it") and related expressions like *in my opinion, in my view,* and the like.

Obviously, many of these words and phrases—especially those in (i) and (ii)—are common coin in epistemological theorising. But here is the critical point: not one of the words or phrases in this list is cross-translatable into most languages of the world. By cross-translatable, I mean precisely translatable. Many languages lack any apparent counterparts, while others have "translation equivalents" in dictionaries that do not coincide fully in meaning (see section 4 for a worked example of Russian vs. English). In my opinion, there can be little doubt that Anglo folk notions such as those itemised earlier have influenced professional epistemology. The only real issues are: to what extent? and what to do about it?

In drawing attention to the importance of Anglo English epistemic terms such as *evidence, empirical, experience,* and *believe,* I am in full agreement with Stephen Stich and Masaharu Mizumoto (2018), who wrote as follows in their Manifesto to the collective volume *Epistemology for the Rest of the World* (Mizumoto et al. 2018):

> Thus, the most important claim of our Manifesto is that *epistemologists (and linguists, and psychologists and experimental philosophers) should pay much more attention to the epistemic language and epistemic concepts that prevail in cultures around the world.* Cross-linguistic and cross-cultural analysis of epistemic terms, sentences and concepts has a crucial role to play in philosophical epistemology.
> (Stich and Mizumoto 2018: xii)

In their Manifesto, Stich and Mizumoto focussed almost exclusively on the English word *know (that),* holding out the possibility (indeed, the likelihood, in their estimation) that it may not have exact equivalents in other languages. The counter-position, that there is a universal and semantically primitive concept KNOW, was argued by Wierzbicka (2018) in the same volume. Although I contend, with Wierzbicka and other

NSM researchers (e.g. Farese 2018), that there is a universal semantic prime KNOW, it is not my purpose to take up that issue—or at least, not directly. Rather, I would like to focus on the challenges of translatability more generally for the "ethno-epistemology" project and for related projects that are predicated on successful cross-linguistic and cross-cultural communication and understanding.

These challenges are severe. They include: How to communicate effectively across language barriers? How to access and "think through" the unfamiliar lexical concepts of other languages? How to model the thoughts and meanings of people from unfamiliar cultures and languages, avoiding the dangers of assimilating their thoughts and meanings to the researchers' home languages—especially, in this age of English as a global lingua franca, to the categories of the English language?

Hence the importance of simple, cross-translatable words to the ethno-epistemological project. I will expand under three points. First, if we were able to speak and think in cross-translatable words, it would be easier to communicate clearly and without distortion across language barriers.

Second, if we were able to formulate our thoughts in simple words, it would help us avoid implicit definitional circularity, reduce the dangers of the bewitchment of language, and counter any temptation to indulge ourselves in linguistic virtuosity for its own sake.

Third, using simple cross-translatable words would offer the prospect of modelling the thoughts and meanings of ordinary speakers of other languages authentically, i.e. the prospect of gaining an "insider perspective", as linguistic anthropologists sometimes term it, on the folk epistemologies of other languages and cultures.

But *are* there any simple, cross-translatable words? This is where the decades-long program of cross-linguistic research known as the NSM (Natural Semantic Metalanguage) program comes in.

2. The NSM Program: Theory and Empirical Findings

The twin hallmarks of Natural Semantic Metalanguage (NSM) approach are its use of reductive paraphrase as a mode of lexical and conceptual analysis and its claim to have discovered an inventory of irreducible lexical meanings—semantic primes—that are apparently universal or near-universal in the world's languages (Wierzbicka 1996, 2006; Goddard 2011, 2018b; Goddard and Wierzbicka 2002, 2014a, 2014b; Peeters 2006; Levisen 2012; Levisen and Waters 2017; Ye 2017; and other works).

The principle behind reductive paraphrase is that to explain the meaning of a word, phrase, etc., the explanation must use words that are clearer and easier to understand than the original expression. This is necessary for clarity and to safeguard against circular (i.e. self-referring) definitions.

To the extent that reductive paraphrase is possible, it implies the existence of some terminal elements of the reductive process, i.e. a set

of indefinable meanings or "semantic primes". After more than three decades of empirical research and conceptual experimentation, NSM researchers claim to have discovered (note: discovered, not stipulated) a viable set of 65 semantic primes. Examples include I, YOU, SOMEONE, SOMETHING, PEOPLE, DO, SAY, WANT, GOOD, BAD, BIG, IF, BECAUSE—and, most notably for the emergent "inter-discipline" of ethno-epistemology: KNOW. See Appendices A and B for full tables of semantic primes in English, French, and Japanese. Parallel tables of primes in about 20 languages, including Finnish, Vietnamese, Ewe (Ghana), and other non-Indo-European languages, are available from the downloads section of the NSM Homepage [short URL: http://bit.ly/2X1DoR7].

Many of the ideas behind the NSM program can be traced back to Gottfried Wilhelm Leibniz (1646–1716), who argued that all explanations must ultimately be grounded in a "catalogue of primitive concepts" (Wierzbicka 2001). Leibniz's program was revived in the 1960s by the Polish linguist Andrzej Bogusławski and was subsequently taken up by Anna Wierzbicka, beginning with her 1972 book *Semantic Primitives*. Born and educated in Poland, Wierzbicka migrated to Australia in the early 1970s and has been based at Australian National University since then.

The NSM approach is still strongest in Australia, but it is on a steady upward trajectory, and there are now NSM scholars based in Denmark, Finland, Poland, Singapore, Spain, Canada, Israel, and other countries. There are dozens of NSM books and hundreds of scholarly papers. A bibliographic database is available at [nsm-approach.net]. The development of NSM theory has been periodised in Goddard (2018b: 33–36). For present purposes, the main points are that systematic cross-linguistic studies into semantic primes have been ongoing since the 1990s and that though for some time the inventory of primes was gradually increasing in number, it has been stable at 65 members since 2008.

NSM researchers expect that semantic primes will be lexical universals, in the sense that each semantic prime should have a lexical equivalent in every human language. The existence of lexical equivalents of the semantic primes has been confirmed in more than 25 languages—as diverse as French, Russian, Polish, Danish, Spanish, Malay, Lao, Korean, Ewe, Akan, Amharic, Chinese, Japanese, Vietnamese, Koromu (PNG), and East Cree. It has to be stressed, however, that the term "lexical" is used broadly to include bound morphemes (e.g. suffixes) and fixed phrases, as well as words proper. In addition, semantic primes can have variant forms or allolexes, such as English *other* and *else*.

It is important to note that words for semantic primes can have other meanings in addition to their simple meaning, a situation that linguists term "lexical polysemy". For example, in many languages the word for DO can also mean "make"; the word for HAPPEN can also mean "appear" or "arrive". Patterns of lexical polysemy vary from language to language. Many claims about the absence of semantic primes in particular

languages turn out to be due to failure to take account of local lexical polysemy, cf. Goddard (2000, 2008: 8–11), Wierzbicka (2006: 20–25).

Semantic primes of course have a syntax, a grammar of combination, and this also appears to be universal as well. For example, as far as we know, the primes SOMEONE, SOMETHING, SAY, BAD, and YOU can be combined in any language to say the equivalent of "someone said something bad about you". An important point about the syntax of semantic primes is that many of them can appear in several different grammatical frames.[1]

Semantic primes and their associated grammar comprise a kind of mini-language: hence the term Natural Semantic Metalanguage. It is an invaluable tool for conceptual analysis and cross-cultural communication. The metalanguage of semantic primes can be used in two modes of analysis: semantic explications and cultural scripts. Semantic explications are explanatory paraphrases of word meanings.[2] Cultural scripts are representations of cultural norms, attitudes, and tacit understandings, not necessarily embodied in any single word meaning. Both modes of analysis are relevant to ethno-epistemology, though in this chapter I will concentrate mainly on semantic explications.

3. A Cross-translatable Metalanguage for Ethno-epistemology

For the purposes of ethno-epistemology, the key elements of natural semantic metalanguage are the following:

- semantic prime KNOW
- the combination "it is like this: . . ."
- TRUE (a semantic prime in its own right, irreducible to KNOW)

Other elements are important too, including THINK, SAY, and WANT; GOOD and BAD; SEE, HEAR, and FEEL; CAN, BECAUSE, and MAYBE; but in the present chapter I will focus on the group of three identified previously. I will briefly go over the main details of these items and then show how they can be used to explicate some key ethno-epistemological notions of English.

3.1 Know

In the following I borrow heavily from a detailed treatment of KNOW in Wierzbicka's contribution to the *Epistemology for the Rest of the World* volume (Mizumoto et al. 2018).

NSM researchers have long maintained that KNOW is an irreducible semantic prime. It is presently believed to have the array of grammatical frames shown in Table 6.1.

Table 6.1 Universal grammatical frames for semantic prime KNOW

(i)	I know
(ii)	this someone knows it
(iii)	this someone knows something
(iv)	this someone knows something about something (including also: know a lot about . . . know more about . . .)

Frame (i) is related to first-person, "dialogical" uses of KNOW. It is the grammatically simplest frame, though the simplicity is deceptive in that the sentence "I know" only makes sense in a dialogical context. Frame (ii) also requires an antecedent, but it is not inherently first-person in orientation. Frames (iii) and (iv) show that KNOW can have a substantive complement, and also a "topic" phrase (introduced in English with preposition *about*).

A very important combinatorial context for KNOW is "I want to know . . .", a meaning component that is involved in the semantics of questions and question forms in all languages.

It is well known, of course, that some languages have several words that may—in other frames and contexts—translate as English "know", and this has been well-studied in NSM semantics.

3.2 Complex But Universal Frames for "Know"

As well as the frames presented in (i)–(iv), many, perhaps most, languages also provide for "know that . . ." sentences, i.e. sentences that include a full sentence-like proposition. Such sentences can be decomposed as shown in [A1] and [A2] below. They represent a kind of grammatical packaging whereby several meaning components are expressed in a single complex sentence.[3]

[A1]   *I know that he did it.*
        it is like this: he (= this someone) did it
        I know it

[A2]   *He knows that I did it*
        it is like this: I did it
        he (= this someone) knows it

Despite their non-primitive status, it appears that "know that . . ." sentences, especially in the first-person, can be part of more complex semantic structures.[4]

3.3 "It Is Like This"

Note the important component "it is like this: . . .". On current evidence, this is a formula that can be stated in all languages. It is a powerful device for "scenario-building" in semantic structures.

The component "it is like this: . . ." often corresponds to the impression of "factuality" from the speaker's point of view.

3.4 *True*

Since at least 1996, NSM theorists have maintained that TRUE is a semantic prime, irreducible to KNOW and expressible by a word in all languages. Of course, in some languages the word for TRUE is polysemous; for example, it may also express a second meaning such as "straight". It is also important to note that semantic prime TRUE has no simple or symmetrical counterpart analogous to the English word *false*. Unlike TRUE, the meaning of *false* is complex and English-specific.

The semantic prime TRUE has a very simple syntax (the simplest, in fact, of all semantic primes): a single grammatical frame:

THIS IS TRUE

The situation is more complex from a discursive/contextual point of view, however, because TRUE can only be used about something that someone says (or, perhaps, thinks). TRUE is, essentially, a metalinguistic semantic prime (Goddard 2008: 79).[5]

3.5 *Other Elements*

As mentioned, other important elements for ethno-epistemological analysis include THINK, SAY, and WANT. Although there is no time for details, it is important to note that English *think* allows some uses that are not part of the universal grammar of THINK. Unlike many languages, English allows "think that . . ." sentences with a general "opinion" sense (Goddard 2010; Goddard and Karlsson 2008). To ensure cross-translatability, no such uses of THINK are allowed in NSM explications. On the other hand, an allowable (and favourite) grammatical frame for THINK is: this someone thinks like this: "——".

4. Semantic Explications for Some Key Words in Anglo Ethno-epistemology

To illustrate the technique of semantic explications, it is useful to focus on some semantic subtleties and peculiarities of English. A semantic explication is a paraphrase composed of simple, cross-translatable words. A good explication should be well-formed, coherent, and "substitutable", i.e. it should satisfy native speaker intuitions about uses of the word in context. There are no fixed "discovery procedures" that lead directly from language data to an optimal paraphrase analysis. In practice, the process is a qualitative version of the method of successive approximations, i.e.

one formulates a coherent explication, tests it against examples of usage, and revises iteratively (usually over weeks or more). If a word has two or more distinct-but-related meanings (lexical polysemy), each needs to be explicated separately. For more detailed accounts and exemplifications of how NSM explications are developed, refined, and tested, see Goddard and Wierzbicka (2014a, 2015).

4.1 *"Knowledge" and "Truth"*

At least one prominent epistemologist (Williamson 2000) has argued for the primitive status of knowing, but Williamson's discussion slips back and forth between the words *know* and *knowledge*. From a linguistic point of view, these words are quite different. As Wierzbicka observes:

> The range of usage of the noun *knowledge* is quite different from that of the verb 'to know', and much more restricted. The word is used a lot in the context of education, in university studies, in philosophy, in encyclopedias, and so on, but far less commonly in everyday life or with reference to momentary states of affairs. For example, if I know what time it is, it doesn't mean that I 'have knowledge of what time it is'—at least not in ordinary language.
>
> (Wierzbicka 2018: 223)

A partial explication of the "knowledge concept" can be given as follows in [B]. The explication is partial because it omits the introductory framing components associated with the status of *knowledge* as an abstract noun. These and other issues connected with abstract nouns are discussed in Goddard and Wierzbicka (2014a: 205–237). It would consume too much time and space to reprise them here. Suffice it to say that an abstract noun like *knowledge*, *trauma*, or *violence* reifies a certain potential situation by linking it with "a word of its own" and thereby establishes it as a potential discourse topic. The core of any abstract noun meaning, and what makes it different in content from other abstract nouns, is the potential scenario. Explication [B] presents the potential scenario evoked by the word *knowledge*—the "knowledge scenario", if you will. It is introduced by the line: "it can be like this: . . .".

[B] *knowledge* (partial explication, potential scenario only)
       . . .
    it can be like this:
        some people know some things about something
        they want to know more
        because of this, they do some things for some time
        after this, these people know more about it (as they wanted)
    it is good if it is like this

Ordinary English examples of this sense of the word *knowledge* include: (i) common expressions and sayings such as *the pursuit of knowledge* and *knowledge is power*, (ii) collocations that speak of *knowledge* being *acquired, gained, shared, disseminated*, and the like, (iii) phrases in which *knowledge* is combined with a modifier indicating a domain, e.g. *scientific knowledge, medical knowledge, knowledge of history*.[6]

Unlike KNOW, then, the idea of *knowledge* is not simple and indefinable. On the contrary, it is complex: a bundle of notions that combines KNOW with other components. These components imply something like a cumulative, goal-directed activity that is valued. The complexity of the "knowledge concept" is of course consistent with the fact that English-speaking children acquire the word *knowledge* much later than *know*.

Something similar applies to TRUE and its corresponding noun *truth*, i.e.: "[T]he noun *truth* . . . includes some additional components of meaning. Roughly speaking, *truth* means that something is not only true but also important" (Wierzbicka Forthcoming). For example, one can use the adjective *true* about something trivial, as in 'It is true that I don't like spinach', but normally one would not use the noun *truth* like that.

[C]   *This is the truth.*
      someone says this about something: "it is like this"
      this is true
      it is good if people want to know it

Wierzbicka (Forthcoming) draws out the significance of particular details of this explication as follows:

> The element GOOD links *truth* with values, the element KNOW, with 'knowledge', and the element PEOPLE gives it its social and human dimension.
>   Further, the element SAY provides the necessary opening for the entry of TRUE into the conversational space, and . . . allows the introduction of the key statement 'it is like this', which, arguably, underlies the intuition that European philosophers often seek to express by linking the word 'truth' with the phrase 'objective knowledge'.
>
> (Wierzbicka Forthcoming)

At this point, it may be useful to remind ourselves that explications [B] and [C] are intended to capture the meanings of the words *knowledge* and *truth* in ordinary everyday English. The professional jargon of epistemologists often uses ordinary words of English well outside their normal uses, including words like *knowledge* and *truth*. For example, outlining some properties of "knowing", Williamson (2000: 34) describes "knowing" as a "factive propositional attitude" and explains: "A propositional attitude is factive if and only if, necessarily, one has it only to truths. Examples include the attitudes of seeing, knowing, and remembering".

In ordinary English, people don't use the word *truths* like that. In relation to sentences like "I know where I left the keys" or "I remember where I left the keys", for example, no one would refer to the known location of the keys as a *truth*.

4.2 The Verb "Believe"

From the perspective of NSM semantics, philosophers are inordinately fond of the English verb *believe* (and its noun counterpart *belief*), with many self-incurred difficulties as a result. Part of the problem is that English *believe* is polysemous and occurs in several grammatical frames, e.g. "to believe that . . .", "to believe someone", "to believe in something", but the more important point is that in any of these frames, the meaning of *believe* is complex and not cross-translatable.

I will confine myself to the "believe that . . ." grammatical frame. Roughly speaking, English "believe that . . ." conveys a considered conviction or commitment. It implies a certain gravitas, as shown by the fact that it can collocate with adverbs like *strongly*, e.g. *I strongly believe that. . . .*[7] Here are a couple of naturally occurring examples:

(i)   *I believe that they shouldn't have the vote.*
(ii) *I believe that that is the key factor to being successful in this particular HEO role.*

These examples have first-person subjects, but the construction is equally at home with third-person subjects, including plural and generic subjects such as "people" (indeed, on corpus evidence it is probably more common with third-person subjects).

(iii) *In the early 1900s people believed that radioactivity was good for you.*
(iv)   *Not long ago people believed that in the future we would work less, have more free time, and be more relaxed. But sadly this has not happened . . .*
(v)   *Before McDonald's entered the European market, few people believed that fast food could be successful in Europe.*

Explication [D] for *believe that* . . . is based on Wierzbicka (2006: 216–218), with some modifications.

[D]   *I believe that—:*
         when I think about it, I think like this:
             "it is like this:—"
         I know that someone else can think about it not like this
         I know why I think about it like this, I can say it
         it is good if people think about it like this

In explication [D], the first two lines expresses something like subjective certainty that something is a "fact". The remaining lines express the subject's awareness of the possible existence of another point of view, accompanied by confidence that he/she can provide some kind of justification for thinking this way (for example, evidence that the proposition is true, that it has been vouched for by a reliable source, etc.) and can explain or defend the value of thinking like this.[8]

As one would expect from its complexity, the meaning of English *believe* is not replicated in many languages of the world. Some languages have no apparent translation equivalent at all. In other languages, dictionaries may give translation equivalents, but closer examination shows that the equivalence is illusory. Gladkova (2007) presents a case study of the Russian verb *sčitat'* that shows exactly this. She quotes the eminent Russian semanticist Jurij Apresjan on the kind of mental processes involved in *sčitat'*:

> [It] is usually the result of a fairly long and thorough process of consideration of all observable facts (note the original idea of *sčet* [counting] which is present in *sčitat'*) . . . selecting [by an act of will] the interpretation . . . which he is prepared to uphold as correct.
>
> (Apresjan 2000: 149)

From an English point of view, the meaning of *sčitat'* can seem decidedly egocentric. It presents an opinion about which there is no longer any room for doubt and it does not allow for or envisage the possibility of other credible options and opinions.

Arguably, the meaning of English *believe* (in its post-Enlightenment sense) reflects a folk epistemology embedded in modern English. The larger point, however, is that it is counter-productive to employ the word *believe* (or *belief*) as part of the theoretical vocabulary of ethno-epistemology. The word is not semantically simple and it is not cross-translatable. On the contrary, it has a highly language-specific set of meanings, complicated patterns of polysemy, and a complicated grammatical profile.

For the purposes of ethno-epistemology, an optimal metalanguage consists of simple, cross-translatable words and phrases such as "know", "it is like this", "think like this: . . .", and "it is true".

5. Some Glimpses into Australian Aboriginal Folk Epistemology

The metalanguage challenge for ethno-epistemology (and other projects involving cross-linguistic semantics; cf. Goddard and Wierzbicka 2014b) emerges in a particularly sharp form when we consider linguacultures which are radically different from those of Europe, particularly small-scale, indigenous cultures without literacy and written traditions.

In the traditional languages and cultures of Aboriginal Australia, for example, one would find no word for "believe", no words for "knowledge", for "evidence", or for "facts" (cf. e.g. Goddard 1996). It would therefore lead to inauthentic and cognitively implausible analyses if one were to depict the folk epistemology of Aboriginal people in terms of such foreign words. On the other hand, these languages do have words for KNOW and TRUE (and other semantic primes such as PEOPLE, THINK, SAY, and WANT) and simple ways to render the other phrases mentioned earlier.

In the space remaining, I will use examples from Aboriginal Australia to illustrate the two modes of NSM analysis mentioned in section 2, i.e., not only semantic explications, but also cultural scripts.

5.1 *The Australian Aboriginal* Jukurrpa *Concept:* *"Knowing Through Dreams"*

It is widely assumed in Aboriginal Australia that some senior men and women can acquire important "knowledge" through dreams. This is an aspect of the complex and culture-specific *Jukurrpa* concept[9], usually rendered into English as "the Dreamtime" or "Dreaming". In a classic work, anthropologist W.E.H. Stanner offered the following characterisation, among others:

> The Dreaming is many things in one. Among them, a kind of narrative of things that once happened; a kind of charter of things that still happen; and a kind of *logos* or principle of order transcending everything significant for Aboriginal man.
>
> (Stanner 2003)

The *Jukurrpa* concept is the subject of an NSM study (Goddard and Wierzbicka 2015) that seeks to explicate it into simple cross-translatable words. The resulting explication is long and intricate (see Appendix C), and not all of it is relevant to the concerns of ethno-epistemology. Some aspects are relevant, however, and, in my opinion, they are particularly fascinating.

The first two sections of the explication are given later. Key words for epistemology are underlined.

[E]   Partial semantic explication for *Jukurrpa* ("Dreamtime", "the Dreaming")
   When people say "Jukurrpa" ("Dreamtime", "the Dreaming"), they think like this:
   at some time before, many things were happening here for some time, things like this can't happen now
   when people here want to say something about all these things, they can say it with one word, this word is *Jukurrpa*
   many old men <u>know</u> a lot about this, many old women <u>know</u> a lot about this

> they <u>can say</u> many things about it
> these things are <u>true</u>
> people <u>can know</u> some things about this (about Jukurrpa),
> because sometimes they see some things when they are asleep [in
>   a dream]
> not all people <u>can know</u> all these things

I want to draw attention to four aspects here. First, in the first section of the explication proper, it can be seen that the *Jukurrpa* concept involves people (especially old men and old women) knowing a lot about some things and being able to say many things about it, and that "these things are true". In mentioning "true", the explication mimics a common way of speaking by Aboriginal people, e.g. "This is a true Dreaming story that I'm telling him, a true Dreaming story".

Second, old men and old women are seen as special authorities regarding knowledge of the *Jukurrpa* "Dreaming, Dreamtime". The terms "old men" and "old women" correspond to indigenous social categories. Aboriginal languages often have a single lexeme or fixed expression for each of these categories. Later sections of the explication (not shown here) establish that men and women have access to different knowledge of the Dreaming.

Third, as stated in the opening of the second section of explication [E], one source of this special knowledge is from actual dreams, i.e. experienced during sleep. Fourth, some knowledge of the *Jukurrpa* is restricted: "not all people can know all these things".

Surely, this single, key concept offers us a glimpse into an ethno-epistemological worldview far removed from that of modern, secular Anglo culture.

5.2 Traditional Aboriginal Attitudes Towards "Knowledge"

Considering that the "peak" knowledge concept (if we may so term it) of traditional Australian Aboriginal societies, namely *Jukurrpa*, already contains a reference to restricted access to this knowledge, it is perhaps not surprising that Aboriginal cultural attitudes concerning who can speak about these things and about the consequences are very different to those of modern European societies. Some anthropologists write about a "knowledge economy" (an evocative, but, unfortunately, ethnocentric term).

In an insightful NSM-informed study, linguist Sophie Nicholls (2013) has commented as follows about matters "of a secret/sacred nature".

> This information (related to ceremonies, songs, places and people) is not freely available. . . . There are restrictions as to who can discuss (or even mention) certain places, ideas, concepts and events

and cultural strategies about how to approach talking about places, ideas, concepts and events. . . . Within the community only certain people, such as traditional owners or initiated men, are qualified to know about these things. Even when something is not secret or sacred, there are often areas of knowledge that [only] specific people are in a position to teach and discuss.

(Nicholls 2013: 295)

To capture some of these attitudes, Nicholls provides the following "cultural script". Though written in semantic primes (and therefore expressible in Aboriginal languages, as well as in English), this is not a semantic explication, i.e. it is not a paraphrase of an actual lexical item. Rather, as indicated by the opening component ("many people here think like this: . . ."), it is a statement of a commonly held attitude.

[F]   *An Aboriginal cultural script concerning knowing about secret/sacred matters*
    many people here think like this:
        some places/things are like this:
            many people can't know a lot about these places/things
                like people can know about other places/things
            some people can't know anything about these places/things
            very bad things can happen if these people know anything about these
                places/things

Noteworthy aspects of the script include the focus on places ("sacred sites"), as well as on things, the fact that some people are excluded from any knowledge whatsoever of the topics in questions, and the idea that there can be dire consequences if any breaches of the restrictions occur ("very bad things can happen if these people know anything about these places/things").

Wierzbicka's (2018) chapter in the *Epistemology for the Rest of the World* volume includes a second, related script regarding "owners of information and talking for others".

5.3 Summary

The general points I have been trying to make in sections 4 and 5 are: first, that cultural concepts and cultural norms concerning "knowing" can differ a great deal across human societies; second, that such concepts and norms are reflected in words, phrases and ways of speaking, observable facts about language and discourse; and third, that the metalanguage of semantic primes provides a means for explicating such concepts and articulating such norms without implicitly adopting the standpoint of any particular language or culture.

6. Why Languages Matter to Ethno-epistemology, Why Semantic Analysis Matters to Ethno-Epistemology

Words and their uses in ordinary discourse provide innumerable clues to assumed categories and societal attitudes, including categories and attitudes connected with "knowing". This is key data for ethno-epistemology.

To have real dialogue across language barriers, we need to express ourselves clearly and translatably. This cannot be achieved if we are not prepared make the effort to speak in simple, cross-translatable words.

> [U]niversal meanings such as KNOW, THINK, TRUE and MAYBE give us better tools for investigating 'core folk epistemology' across cultures than language-and-culture-specific ones like 'believe', 'justified belief' or 'knowledge'. And not only across cultures, but also across times.
>
> (Wierzbicka 2018: 225)

We need semantic analysis—conducted in simple, cross-translatable words—in order to de-couple what we want to say from complex, non-translatable English words such as *evidence, facts, justification, intersubjective agreement*, and the like, and thus to avoid or minimise Anglo-/ Eurocentrism. Equally, we need semantic analysis—conducted in simple, cross-translatable words—in order for us to "hear" properly what other people are saying, when they express themselves using language-specific words of their own cultures.

Appendix A
Semantic Primes, English and French

I, YOU, SOMEONE, SOMETHING ~ THING, PEOPLE, BODY *je, tu, quelqu'un, quelque chose ~ chose, gens, corps*	substantives
KINDS, PARTS TYPES, PARTIES	relational substantives
THIS, THE SAME, OTHER ~ ELSE *ce, la même chose, autre*	determiners
ONE, TWO, SOME, ALL, MUCH ~ MANY, LITTLE ~ FEW *un, deux, certains, tous, beaucoup, peu*	quantifiers
GOOD, BAD *bien, mal*	evaluators
BIG, SMALL *grand, petit*	descriptors
KNOW, THINK, WANT, DON'T WANT, FEEL, SEE, HEAR *savoir, penser, vouloir, ne pas vouloir, sentir, voir, entendre*	mental predicates
SAY, WORDS, TRUE *dire, mots, vrai*	speech
DO, HAPPEN, MOVE *faire, arriver, bouger*	actions, events, movement
BE (SOMEWHERE), THERE IS, BE (SOMEONE/SOMETHING) *être (quelque part), il y a, être (quelqu'un/quelque chose)*	location, existence, specification
(IS) MINE *(est) à moi*	possession
LIVE, DIE *vivre, mourir*	life and death
TIME ~ WHEN, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME, MOMENT *moment ~ quand ~ fois, maintenant, avant, après, longtemps, peu de temps, pour quelque temps, instant*	time
PLACE ~ WHERE, HERE, ABOVE, BELOW, FAR, NEAR, SIDE, INSIDE, TOUCH	place

endroit ~ où, ici, au-dessus, au-dessous, loin, *près, côté, dans, toucher*	
NOT, MAYBE, CAN, BECAUSE, IF	logical concepts
ne . . . pas, peut-être, pouvoir, à cause de, si	
VERY, MORE	intensifier, augmentor
très, plus	
LIKE ~ AS ~ WAY	similarity
comme ~ façon	

Notes:
- Exponents of primes can be polysemous, i.e. they can have other, additional meanings
- Exponents of primes may be words, bound morphemes, or phrasemes
- They can be formally complex
- They can have language-specific combinatorial variants (allolexes, indicated with ~)
- Each prime has well-specified syntactic (combinatorial) properties.

Source: After Goddard and Wierzbicka 2014a; Peeters 2006

Appendix B

Japanese Semantic Primes, with English equivalents

私WATASHI, あなた ANATA, 誰か DAREKA, 何か〜も の〜こと NANIKA~MONO~KOTO, 人々 HITO-BITO, 体 KARADA *i, you, someone, something~thing, people, body*	substantives
種類 SHURUI, 部分 BUBUN *kinds, parts*	relational substantives
これ *kore*, 同じ *onaji*, 他 *hoka* *this, the same, other~else*	determiners
一 HITO~ICHI, 二 FUTA~NI, いくつか〜何人か IKUTSUKA~NANNINKA, すべて SUBETE, たくさん TAKUSAN, 少し SUKOSHI *one, two, some, all, much~many, little~few*	quantifiers
良い YOI, 悪い WARUI *good, bad*	evaluators
大きい OOKII, 小さい CHIISAI *big, small*	descriptors
思う〜考える OMOU~KANGAERU, たい〜欲しい 〜望む -TAI~HOSHII-NOZOMU, たくない〜 欲しくない〜望まない -TAKUNAI~HOSHIKUNAI ~NOZOMANAI, 感じる KANJIRU, 見る MIRU, 聞く KIKU *know, think, want, don't want, feel, see, hear*	mental predicates
言う IU, 言葉 KOTOBA, 本当 HONTŌ *say, words, true*	speech
する SURU, 起こる〜起きる OKORU~OKIRU, 動く UGOKU *do, happen, move*	actions, events, movement
（どこかに）いる一ある (DOKOKANI) IRU-ARU, ある〜いる ARU~IRU, （誰か一何か）である (DAREKA/NANIKA) DEARU *be (somewhere), there is, be (someone/ something)*	location, existence, specification
私のである (WATASHI NO) DEARU *(is) mine*	possession
生きる IKIRU, 死ぬ SHINU *live, die*	life and death

いつ〜時〜回 ITSU~TOKI~KAI, 今 IMA, 前 MAE, 後 ATO, 長い間 NAGAI AIDA, 短い間 MIJIKAI AIDA, しばらくの間 SHIBARAKU NO AIDA, すぐに〜一瞬 SUGUNI~ISSHUN
when~time, now, before, after, a long time, a short time, for some time, moment　　　time

どこ〜所〜どこか DOKO~TOKORO~DOKOKA, ここ KOKO, 上 UE, 下 SHITA, 遠い TOOI, 近い CHIKAI, 面 MEN, 中 NAKA, 触る SAWARU
where~place, here, above, below, far, near, side, inside, touch　　　place

ない NAI, 多分 TABUN, できる〜得る DEKIRU~ERU/-URU, から KARA, （もし）ーば (MOSHI) -BA
not, maybe, can, because, if　　　logical concepts

すごく SUGOKU, もっと〜もう MOTTO~MŌ
very, more　　　intensifier, augmentor

よう〜ように YŌ~YŌNI
like~as　　　similarity

Source: Asano-Cavanagh and Farese 2015

Appendix C
Full Explication for *Jukurrpa*

Jukurrpa ("Dreamtime", "the Dreaming")

When people say "Jukurrpa" ("Dreamtime", "the Dreaming"), they think like this:
    at some time before, many things were happening here for some time, things
       like this can't happen now
    when people here want to say something about all these things, they can say it
       with one word, this word is Jukurrpa
    many old men know a lot about this, many old women know a lot about this
    they can say many things about it
    these things are true

HOW PEOPLE CAN KNOW ABOUT THIS (ABOUT JUKURRPA)
    people can know some things about this (about Jukurrpa),
       because sometimes they see some things when they are asleep [in a dream]
    not all people can know all these things

WHAT PEOPLE OFTEN SAY ABOUT THIS (ABOUT JUKURRPA)
    people in this place often say many things for some time about this (about Jukurrpa)
    people in this place often want to hear these things
    when people in this place say these things, they say things like this:
       "many things happened at this time before, these things happened in many
         places
       some men did some things in some places, these men were not like men are now
       some women did some things in some places, these women were not like
         women are now
       some creatures of some kinds did some things in some places, these
         creatures were not like creatures of these kinds are now"
    people often say something like this about many places: "this place is like this
       because of Jukurrpa"
    people often say something like this about many things: "it is like this because
       of Jukurrpa"

WHAT PEOPLE DO BECAUSE OF ALL THIS (BECAUSE OF JUKURRPA)
    men now do some things in many places
       because they want to think about all this (about Jukurrpa)
    they do some things like many other men did at many times for a long time before
    when they do these things somewhere, something happens in this place as it
       happened before
    at some times women do things like this in some places
    if people don't do these things, something very bad can happen

---

WHAT PEOPLE CAN'T DO BECAUSE OF ALL THIS (BECAUSE OF JUKURRPA)
    people in this place know very much about all this (about Jukurrpa)
    because of this, they do not do some things
    if someone does something like this, people say: "this is very bad"

Source: Goddard and Wierzbicka 2015

Acknowledgments

Notes

1. The semantic primes and their grammatical frames are summarised in the Chart of NSM Semantic Primes, downloadable from the NSM page in English and French versions.
2. Many NSM explications rely not only on semantic primes but also on semantic molecules, i.e. non-primitive meanings that function alongside semantic primes as integrated units (or "building blocks") in the composition of yet more complex lexical meanings. Examples of semantic molecules include "children", "long", "hands", "mouth", "sun", "water".
3. These examples also show how the phenomenon of "referential opacity" is modelled in paraphrases, but this is an angle we cannot pursue here.
4. Likewise, all or most languages have grammatical packaging for talking about categorical knowledge (wh-complement, "embedded question"). This is related to the existence, in all languages, of questions that seek specific categories of information (cf. Wierzbicka 2018).
5. Another distinctive hallmark of TRUE, especially as compared with GOOD and BAD, is that it cannot be modified by VERY (not withstanding that the combination *very true* is possible in contemporary English).
6. To be sure, the noun *knowledge* is polysemous, with several distinct meanings/uses aside from that explicated in [B]. Notably, the expressions *common knowledge* and *public knowledge* are quite frequent. Both are used to refer, loosely speaking, to a specific fact, e.g. *It was common knowledge that. . . .* Another fairly common usage appears in legalistic expressions such as *To the best of my knowledge, I have no knowledge of that*, and *He denied all knowledge*. A full treatment of the polysemy of the word *knowledge* is not possible here.
7. There is another distinct use of *believe* in the first-person conversational formula *I believe*, which has a "lighter" meaning. This usage cannot combine with *strongly* or other similar adverbs, nor can it be matched with any talk of *beliefs*. For example, I could say, using the conversational formula *I believe*, something like: *Oh, I believe the library has a copy*, but one would hardly expect me to add any adverbs such as *strongly* to a statement of this kind, nor could I refer to *my belief* that the library has a copy (Goddard 2003).
8. The final pair of components, involving CAN SAY, imply something potentially dialogical, insofar as they imply that the person may wish to justify his or her belief and perhaps can expect to be asked to do so.

9. Properly speaking, the word *Jukurrpa* belongs to the Warlpiri language of Central Australia. Other Australian Aboriginal languages have comparable terms, though it cannot be assumed that they correspond to the Warlpiri concept in every respect. Jukurrpa (and Tjukurpa, a cognate term from the Pitjantjatjara language, also from Central Australia) are becoming increasingly used in mainstream Australian English discourse. Other terms include Altyerrenge or Altyerr (in the Arrernte language of central Australia), Ngarrankarni (in the Kiji language of East Kimberley), and Wongar (North-East Arnhem Land), to name only a handful (Nicholls 2014).

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7 Skeptical Arguments, Conceptual Metaphors, and Cross-Cultural Challenges

Julianne Chung

One feature of debates about skeptical arguments that has largely been overlooked by contemporary Anglo-analytic philosophers is that they are pervasive across a number of philosophical traditions. Some of the most general and powerful skeptical arguments—such as arguments from regress, arguments from circularity, and arguments from skeptical hypotheses—have been proposed and attacked by ancient and medieval Greek and Hellenistic, Indian, Chinese, and a variety of modern and contemporary philosophers alike.[1]

In other words, skepticism (as well as resistance to it) is in some sense a cross-cultural phenomenon.[2] Because of this, it cries out for a cross-cultural explanation: that is, an account of why this is so. In this chapter, I argue that the view that BELIEVING IS KNOWING[3] is a primary conceptual metaphor (which I characterize as a form of *epistemic fictionalism*)[4] promises to provide the beginnings of such an explanation. I first briefly explain what primary conceptual metaphors are before going on to clarify why BELIEVING IS KNOWING is plausibly among them. Following that, I show how this account can be used to offer a unified (if partial) response to three particularly pressing philosophical questions: i) Why are skeptical arguments appealing?; ii) Why are skeptical arguments difficult to accept?; and iii) Why are these features of skeptical arguments widespread? In other words, why is skepticism (as well as resistance to it) in some sense a cross-cultural phenomenon?

Before I proceed, a caveat: While my goal here is to emphasize similarities between an array of skeptical arguments proposed by a variety of philosophers, I do not mean to imply that there are not important differences between them.[5] For my purposes I want only to motivate the claim that skepticism (as well as resistance to it) is in some sense a cross-cultural phenomenon, and as such, explanations of its appeal (and lack thereof) should take this into account. Also, because I take it to be uncontroversial that these arguments have been widely discussed in contemporary Anglo-analytic philosophy, I refrain from providing specific instances of such work that discusses them here. Instead, I focus on motivating the claim that skepticism (as well as resistance to it) is in

some sense a cross-cultural phenomenon by providing just a few examples from outside contemporary Anglo-analytic philosophy that suggest it. In addition, for simplicity, I consider these arguments as they pertain to knowing, rather than, say, justified believing, although they may be suitably revised so as to call such things into question as well.

1. Skeptical Arguments

1.1 Arguments from Skeptical Hypotheses

General Form

Skeptical arguments that follow this pattern are designed to call claims to know into question by employing specific skeptical hypotheses—incompatible with those claims—that supposedly cannot be ruled out. They can be approximately characterized as having the following general form (where "p" designates a proposition that we might take ourselves to know and where "sk" designates a proposition that is considered to be incompatible with our knowing p). One popular skeptical hypothesis in contemporary literature on such arguments is the possibility that one is a brain-in-a-vat or, a bit more recently, that one is living in a computer simulation of some kind. But, there are many others: as we will see, historically the possibilities that one is dreaming or deceived by a powerful supernatural entity have also been discussed across philosophical traditions.

Argument from Skeptical Hypothesis: General Form

1.   S knows p (assumption for *reductio*)
2.   If S knows p, then S is in a position to know that sk does not obtain
3.   S is not in a position to know that sk does not obtain
4.   1–3 cannot all be true
5.   Therefore, it is not the case that S knows p

Cross-Cultural Examples

At present the most widely known example of such an argument as it figures in the history of European philosophy is Descartes's "Dream Argument," from Meditation One of his *Meditations on First Philosophy*. However, as several commentators have pointed out (cf. Raphals 1996; Schwitzgebel 1996; Allinson 2001), ancient Greek and Daoist philosophers propose such arguments as well. For example, in Plato's *Theaetetus* (158b-158d) we witness the following dialogue between Theaetetus and Socrates:

THEAET: . . . I really shouldn't know how to dispute the suggestion that a madman believes what is false when he thinks he is God; or a dreamer when he imagines he has wings and is flying in his sleep.

SOC: But there's a point here which *is* a matter of dispute, especially as regards dreams and real life—don't you see?

THEAET: What do you mean?

SOC: There's a question you must often have heard people ask—the question what evidence we could offer if we were asked whether in the present instance, at this moment, we are asleep and dreaming all our thoughts, or awake and talking to each other in real life.

THEAET: Yes, Socrates, it certainly is difficult to find the proof we want here. The two states seem to correspond in all their characteristics. There is nothing to prevent us from thinking when we are asleep that we are having the very same discussion that we have just had. And when we dream that we are telling the story of a dream, there is an extraordinary likeness between the two experiences.

SOC: You see, then, that it is not difficult to find matter for dispute, when it is disputed even whether this is real life or a dream. Indeed we may say that, as our periods of sleeping and waking are of equal length, and as in each period the soul contends that the beliefs of the moment are pre-eminently true, the result is that for half our lives we assert the reality of the one set of objects, and for half that of the other set. And we make our assertions with equal conviction in both cases (Trans. M.J. Levett, in Burnyeat 1990: 280–281).

And in the *Zhuangzi*, we have the famous "butterfly dream" episode of the *Qi wu lun*,[6] the second chapter of the text:[7]

> Once Zhuang Zhou dreamt he was a butterfly, fluttering about joyfully just as a butterfly would. He followed his whims exactly as he liked and knew nothing about Zhuang Zhou. Suddenly he awoke, and there he was, the startled Zhuang Zhou in the flesh. He did not know if Zhou had been dreaming he was a butterfly, or if a butterfly was now dreaming it was Zhou. Surely, Zhou and a butterfly count as two distinct identities! Such is what we call the transformation of one thing into another.
>
> (Ziporyn 2009: 21)

An even better example, however, is seen in this passage that precedes it:

> How, then, do I know that delighting in life is not a delusion? How do I know that in hating death I am not like an orphan who left home in youth and no longer knows the way back? Lady Li was a daughter of the border guard of Ai. When she was first captured and brought to Qin, she wept until tears drenched her collar. But when she got to the palace, sharing the king's luxurious bed and feasting on the finest meats, she regretted her tears. How do I know that the dead don't regret the way they used to cling to life? "If you dream of drinking

wine, in the morning you will weep. If you dream of weeping, in the morning you will go out hunting."[8] While dreaming you don't know it's a dream. You might even interpret a dream in your dream—and then you wake up and realize it was all a dream.

Perhaps a great awakening would reveal all of this to be a vast dream. And yet, fools imagine they are already awake—how clearly and certainly they understand it all! This one is a lord, they decide, that one is a shepherd—what prejudice! Confucius and you are both dreaming! And when I say you're dreaming, I'm dreaming too.

(Ziporyn 2009: 19)

We have also these remarks, which come much later, in the sixth of the inner chapters:

You temporarily get involved in something or other and proceed to call it "myself"—but how can we know if what we call "self" has any "self" to it? You dream you are a bird and find yourself soaring in the heavens, you dream you are a fish and find yourself submerged in the depths. I cannot even know if what I'm saying now is a dream or not.

(Ziporyn 2009: 48)

Considerations having to do with dreams also play an important role in classical Indian Buddhist philosophy. One such place is in the idealism, or perhaps skepticism, of Vasubandhu as presented in his *Vijñaptimatratāsiddhi* (which can be rendered as *Treatise on Pure Cognitive Construction* (Ram-Prasad 2002))—although it is worth pointing out that this is not the only place where Vasubandhu, or Indian philosophers more generally, discuss such matters (see Gold 2006; Mills 2016b for a discussion of other examples).[9] What is more, as Chakravarthi Ram-Prasad points out, here Vasubandhu even adds something that may remind us of Descartes: that loss of memory, dream visions, and such like states can be caused by the manipulative consciousness of demons and so forth (Ram-Prasad 2002: 52).

1.2 Arguments from Regress

General Form

Skeptical arguments that follow this pattern are designed to call claims to know into question by demonstrating that they rely on unverified assumptions that would have to be independently verified in order for claims to know to be true (which threatens to result in an infinite regress). They can be approximately characterized as having the following general form.

Argument from Regress: General Form

1. S knows p (assumption for *reductio*)
2. In order for 1 to be true, S would need to verify all the assumptions on which their knowing p relies
3. Any attempt to carry out the procedure outlined in 2 would itself rely on further assumptions that S would need to verify in order for 1 to be true (and so on)
4. There is no principled, non-arbitrary place to stop this process of verification
5. Therefore, it is not the case that S knows p

Cross-Cultural Examples

Arguments along these lines have been proposed by Pyrrhonian skeptics (such as Sextus Empiricus), Daoist skeptics (such as Zhuangzi), Buddhist skeptics (especially in the Prāsangika Madhyamaka tradition, beginning with Nāgārjuna) and modern European skeptics (including Hume) (Cf. Garfield 2002).

Concerning Pyrrhonian skepticism, one highly influential argument can be found in book one of *Pyrrhoniae Hypotyposes* (*Outlines of Pyrrhonism*) entitled "The Five Modes." Here Sextus writes:

> The more recent Skeptics hand down the following five modes of *epochē*: the first is the mode based on disagreement; the second is that based on infinite regress; the third, that based on relativity; the fourth, on hypothesis; and the fifth is the circularity mode. . . . The one based on infinite regress is that in which we say that what is offered as support for believing a given proposition is itself in need of such support, and that support is in need of other support, and so on *ad infinitum*, so that, since we have no place from which to begin to establish anything, suspension of judgment follows.
>
> (Mates 1996: 110)

We see analogous remarks made by Zhuangzi as well, who notes that:

> Wherever debate shows one of two alternatives to be right, something remains undistinguished and unshown. What is it? The sage hides it in his embrace, while the masses of people debate it, trying to demonstrate it to one another. Thus I say that demonstration by debate always leaves something unseen.
>
> (Ziporyn 2009: 16)

And similar arguments can be found in Nāgārjuna's *Vigrahavyāvartanī* (*The Dispeller of Disputes*):

31. If according to you objects of some kind are established by the epistemic instruments, you have to indicate how according to you the epistemic instruments are established in turn.

If you think that epistemic objects of some kind are established through the epistemic instruments, just as a measuring instrument establishes what is to be measured, then where does the establishment of the four epistemic instruments, perception, inference, likeness, and testimony, come from? Because if the epistemic instruments were established by something that was not an epistemic instrument, the thesis that "the objects are established through the epistemic instruments" is refuted. Moreover:

32a. If the epistemic instruments were established by other epistemic instruments, there would be an infinite regress.

If you thought that the epistemic objects are established by the epistemic instruments, and that the epistemic instruments are established by other epistemic instruments, the absurd consequence of an infinite regress follows. What is the problem with the absurd consequence of an infinite regress?

32b. Neither the beginning, the middle, nor the end is established there.

There is the absurd consequence of an infinite regress, the beginning is not established. Why? Because those epistemic instruments are established by other epistemic instruments, and so in turn for these other epistemic instruments. Because there is no beginning, where would middle and end come from? To this extent your statement "the epistemic instruments are established by other epistemic instruments" is not adequate.

(Westerhoff 2010: 30–31)

1.3 *Arguments from Circularity*

General Form

Skeptical arguments that follow this pattern are designed to call claims to know into question by demonstrating that we cannot substantiate them in a non-viciously circular fashion. Arguments from regress and arguments from circularity are often used together to mount skeptical attacks; indeed, this occurs both in the passages from the *Outlines of Pyrrhonism* and the *Vigrahavyāvartanī*[10] mentioned earlier. However, although arguments from regress and arguments from circularity often occur together, they can come apart. Crispin Wright (Wright 2000: 169–170), for example, attributes this type of skeptical argument to Hume:

1. All observed Fs are G
2. (Therefore) All Fs are G
3. Cases observed in the future will resemble cases observed in the past

4. In order to be supported in moving from 1–2, one must already have support for 3
5. The only way of getting support for 3 would be to infer it from claims like 1 and 2
6. The move from 1–3 cannot be supported in any other way
7. As a result, there is no way to get support for 2 or 3, and thus, we cannot know a claim by inferring it from previously observed cases[11]

Wright points out that it is not often observed, however, that this form of skeptical argument further generalizes, and can be used to undermine claims to know anything about the external world, other minds, the past, and abductive reasoning more generally, among possibly other things. As Wright puts the point, "[a] version of this paradox will be available whenever we are persuadable (at least temporarily) that the ultimate justification for one kind of claim—a type-[2] proposition—rests upon ampliative inference from information of another sort—type [1] propositions," as in:

1. It appears to S that: p (where p is a proposition about the external world, for instance)
2. S knows p (from 1)
3. S knows that there is an external world (Wright 2000: 170–174)

Again, the problem is that it seems as if, in order to be justified in moving from 1–2, one must already have support for 3. However, the only way of getting support for 3 would be to infer it from 1–2. Further, the move from 1–3 cannot be supported in any other way. As a result, there is no way to get support for 2 or 3, and thus we cannot know anything about the external world. (4–7 from the argument proposed earlier could be added to this argument as well to explain why we cannot know anything about the external world).

Arguments from Circularity: General Form

Following Wright, let us call the propositions found in the above arguments type-I, II, and III propositions (in accordance with the way they are numbered there, from 1–3). As Wright (2000: 172) notes, the schematic form of the resulting skeptical argument can be given by these five claims:

1. Type-II propositions can only be justified on the evidence of (by ampliative inference from) type-I propositions
2. The evidence provided by type-I propositions for type-II propositions is information-dependent, requiring (among other things) collateral warrant for a type-III proposition
3. So, type-III propositions cannot be warranted by transmission of evidence provided by type-I propositions for type-II propositions across a type-II to type-III entailment—rather it is only if one already has

warrant for the type-III proposition that any type-II propositions can be justified in the first place

4. Type-III propositions cannot be warranted any other way
5. Therefore, there is no warrant for any type-II proposition (and hence, for any type-II proposition p, it is not the case that S knows p)

Cross-Cultural Examples

Similar arguments have been also been proposed by philosophers hailing from an array of traditions. For example, later in "The Five Modes" section of book one of the *Outlines of Pyrrhonism*, Sextus Empiricus argues that:

> the circularity mode occurs when what ought to make the case for the matter in question has need of support from that very matter; whence, being unable to assume either in order to establish the other, we suspend judgment about both.
>
> (Mates 1996: 110)

Like Sextus Empiricus, Nāgārjuna also uses arguments from circularity to make his skeptical point. Following the argument from regress that he provides in the *Vigrahavyāvartanī*, he goes on to say later that:

> 33. At this point the opponent objects: "It is the very epistemic instruments which prove themselves as well as others. As it is said:
>   As fire illuminates itself as well as others, so the epistemic instruments prove themselves and others.
>   As fire illuminates both itself and others, the epistemic instruments illuminate both themselves and others."
>   To this we reply:
>   34. This is a mistaken suggestion. For fire does not illuminate itself, as not perceiving it is not similar to the sight of a pot in the dark.
>   It is clearly a mistake to suggest that the epistemic instruments prove themselves and prove others, because fire does not illuminate itself. For if at first the pot in the dark, which is not illuminated by fire, is not perceived, it is perceived at a later time, being illuminated by fire. If there was first an unilluminated fire in the dark, which would be illuminated at a later time, then fire would illuminate itself. However, it is not like this. So far this assumption is not adequate.[12]
>
> (Westerhoff 2010: 31)

We can also see intimations of similar arguments in the *Zhuangzi* (cf. Kjellberg 1996: 9) in passages like:

> If we follow whatever has so far taken shape, fully formed, in our minds, making that our teacher, who could ever be without a teacher?

>The mind comes to be what it is by taking possession of whatever it selects out of the process of alternation—but does that mean it has to truly understand that process? The fool takes something up from it too. But to claim that there are any such things as "right" and "wrong" *before* they come to be fully formed in someone's mind in this way—that is like saying you left for Yue today and arrived there yesterday.
>
>(Ziporyn 2009: 11)

1.4 Resistance to Skeptical Arguments

Not only have skeptical arguments been advanced by an assortment of philosophers working across various traditions, times, and locations but so have objections to those arguments. As a starting point, consider the history of debates about Pyrrhonian skepticism. Pyrrhonian skepticism is named after the Greek philosopher Pyrrho of Elis, who left no writings. What we know about his philosophy is based on what subsequent writers have said about it. Among them is Diogenes Laertius, who purported to write about the life of Pyrrho in *The Lives and Opinions of Eminent Philosophers*, as well as Pyrrho's student Timon of Philus, who—unlike Pyrrho—authored many works and was likely at least in part responsible for transporting Pyrrho's views from Elis to Athens (where various forms of skepticism thrived and competed with one another over the course of approximately 150 years, some of the history of which will be surveyed later). Later, Aenesidemeus brought Pyrrhonian skepticism from Athens to Alexandria in Egypt, where a form of it was adopted by the medical empiricists there (who sought to conduct their science purely by reference to observable phenomena, without appealing to hidden or invisible causes such as the humors or the four elements), only eventually receiving its paradigmatic expression in the writings of Sextus Empiricus in the second century CE (Raphals 1996: 2).[13]

Of course, as just noted, although it attracted many adherents, Pyrrhonian skepticism was in its time—and later on as well—opposed by many philosophers both skeptical and anti-skeptical. Regarding the former, the most famous are the so-called Academic skeptics such as the Greek philosophers Arcesilaus and Carneades and, later, the Roman philosopher Cicero in his work *On Academic Skepticism*. And both these schools of thought were considered to conflict with others that advance more positive views, such as the Epicurean, Stoic, and later Peripatetic (Mates 1996: v). Sextus Empiricus himself even begins *Outlines of Pyrrhonism* by distinguishing his position from others—including that of those of Academic skeptics—as follows, in a section entitled, "The Main Difference between the Philosophies:"

>When people search for something, the likely outcome is that either they find it or, not finding it, they accept that it cannot be found,

or they continue to search. So also in the case of what is sought in philosophy, I think, some people have claimed to have found the truth, others have asserted that it cannot be apprehended, and others are still searching. Those who think that they have found it are the Dogmatists, properly so called—for example, the followers of Aristotle and Epicurus, the Stoics, and certain others. The followers of Cleitomachus and Carneades, as well as other Academics, have asserted that it cannot be apprehended. The Skeptics continue to search. Hence it is with a reason that the main types of philosophy are thought to be three in number: the Dogmatic, the Academic, and the Skeptic.

(Mates 1996: 89)

Moreover, eventually a variety of European and Middle-Eastern philosophers took it upon themselves to oppose Pyrrhonian skepticism, especially when widespread interest in it was revived in the seventeenth century (see Floridi 2008 for an impressive catalogue of examples). However, discussion of Pyrrhonian skepticism drastically diminished during the period of time between Augustine and Descartes, with Academic skepticism being the best-known kind. As Luciano Floridi notes, in connection with this it is significant that the word *academicus* had become synonymous with "skeptic," a use of the term that remained unchanged until the seventeenth century (Floridi 2008: 267–268). What is more, as Floridi writes:

In the early Middle Ages, there appears to have been no epistemological defense of skepticism as such, nor further attempts at refutation after Augustine's [in Western European philosophy]. If Christian religion was able to awaken the saint from his skeptical nightmare, its robust sense of realism also succeeded in preventing medieval philosophers from entertaining logically possible questions on the nature of human knowledge, and hence systematic skeptical doubts about its reliability. Or at least so it seemed for a long time. In *De Anima*, Tertullian (160–240) had already clarified the Christian attitude towards knowledge in rather drastic tones: a Christian does not need to acquire much knowledge, first because facts that are positively certain are few and, secondly, because endless investigations are forbidden by Paul of Tarsus. Curiosity is a vice and it is better to leave the fruits on the tree of knowledge untouched. Man is not allowed to discover more than he learns from God; and what he learns from God constitutes all he needs to know.

(Floridi 2008: 268)

Interestingly, however:

[These] logical arguments intended to humble human reason may be similar because the target of the polemic is the same, namely human

knowledge and its intellectual pretensions. Indeed, Tertullian bor-
rowed some of his dialectical weapons from Aenesidemus, through
the work of the physician and doxographer Soranus (98–138), who,
in his turn, had probably read Aenesidemus' own work, which was
still available during the early Middle Ages. Nevertheless, the differ-
ence between ancient skepticism and Christian anti-intellectualism
remains substantial, in terms of their respective orientations: anti-
dogmatism, tolerance, and mundane *ataraxia* [tranquility] in the
former case, belief, dogmatism, and eternal salvation in the latter.
Once systematic doubt has been instilled, ancient skepticism seeks to
step back into suspension of judgment, whereas Christianized anti-
intellectualism leaps forward into faith.[14]

(Floridi 2008: 269)

Also, it should be noted that although Western Europe largely lost
touch with the skeptical (and especially the Pyrrhonian) literature for
want of linguistic skills, epistemological interests, primary sources, and
because of the increasing theologization of its philosophical investiga-
tions, according to Floridi, Byzantine Europe was slightly better off,
since some of these factors (especially the linguistic one) did not apply
to the same extent. Also, there seems to have been a wider availability of
the original skeptical texts in the Middle East during this period (Floridi
2008: 274).

Eventually, however, skepticism regained its widespread influence. In
the twelfth and thirteenth centuries, Western European philosophers
began to again take some notice of skeptical themes, and in the four-
teenth century a defense of epistemological skepticism surfaced in the
work of Nicholas of Autrecourt, who advocated a skeptical approach to
philosophy (although he is perhaps the only medieval European philoso-
pher to have done so). During this time Byzantine culture also displayed
a revival of the intellectual debate about skepticism—though always with
the purpose of refutation rather than acceptance (Floridi 2008: 274–
275). And although the recovery and dissemination of Sextus' texts in
Western Europe in the fifteenth and sixteenth centuries initially resulted
from literary, erudite, antiquarian, and philological interests, this soon
led to and became intertwined with the philosophical study of the skep-
tical doctrines themselves, which gained further momentum from these
theoretical contemplations (Floridi 2008: 278–279). The epistemological
debate on skeptical doubts, on the nature of empirical knowledge, and
on scientific certainty in Western Europe would then go on to develop
more fully in the beginning of the seventeenth century, once Sextus' writ-
ings and the recovery of skepticism deeply affected French philosophy
(beginning with the work of figures such as Montaigne in the century
prior). For although until that time interpretations—scant as they were—
of the skeptical literature had been mainly borne of ethical and religious

readings, as Floridi writes, likely at least in part as a result of increased interest in scientific inquiry the following shift occurred:

> skeptical questioning became a valuable instrument of theoretical investigation in epistemology. The contents of Sextus' works over-shadowed any other text in the skeptical tradition and became the target of endless refutations, which often missed the ethical value of the Pyrrhonian position and dealt with skeptical objections and arguments as if they were puzzles to solve, tricks to be unmasked, or traps to be avoided. . . . [And] by the time the *Meditations* were published, we should no longer speak of the influence of skeptical arguments on modern philosophy, but rather take them to be an integral part of it.
> (Floridi 2008: 284)

As regards skepticism in Asian traditions, the thesis-less skepticism of Prāsaṅgika Madhyamikas who saw themselves as following in the footsteps of Nāgārjuna (such as Buddhāpalita and Candrakīrti) was opposed by that of Svātantrika Madhyamikas (such as Bhāvaviveka), who, while still fairly skeptical, defended positive claims (including that the reliability of reason could be affirmed—a debate that in many ways parallels that of Pyrrhonian and Academic skeptics (cf. Dreyfus and Garfield 2010)).[15] Furthermore, Buddhist skeptics, like Pyrrhonian and Academic skeptics, were opposed by a variety of anti-skeptical Indian philosophers, such as Naiyāyikas and Mīmāṃsakas.[16] While skepticism faded into the background in medieval European philosophy, both Prāsaṅgika and Svātantrika philosophy flourished, over time giving rise to a number of intriguing philosophical developments. For example, Karma Phuntsho argues that Tsongkhapa (on whose work the influential Gelukpa order of Tibetan Buddhism is founded), although an adherent of Prāsaṅgika, was deeply concerned with a certain tendency toward anti-rationalism inculcated by philosophical naivety and epistemological skepticism—pervasive in his day—for its profound religious and ethical consequences. Because of this, she claims, in his work he stresses the soteriological role of certainty on the nature of two truths, as:

> mere withdrawal of apprehension, grasping and other activities of mind without any conviction or confident knowledge of Emptiness derived from correct reasoning, cannot eliminate the defiling emotions. To the Gelukpas, apprehension of Emptiness is not a negative thing but the right view and the true antidote. Without the apprehension of Emptiness, certainty on and knowledge of Emptiness would not be possible. Tsongkhapa remarks that many people appear to assume wrongly that they obtained the quiddity of Madhyamaka in denying all theses such as 'this is' and 'this is not' and claim to meditate on correct view for contemplating on the 'non-grasping of

anything'. Such claims are ignoble words instigating wrong views and would only estrange the persons from the correct understanding.

(Phuntsho 2005: 182)[17]

Daoist skepticism was in conflict with both Confucian and Mohist positions (cf. Kjellberg 1996; Sturgeon 2015),[18] although it is interesting to note that Xunzi, one of Zhuangzi's Confucian interlocutors, though an anti-skeptic, did not take issue with Zhuangzi's skeptical arguments directly but rather the motivations that he took to lie behind them (Kjellberg 1996: 21).

Of course, this is but the broadest sketch of the history of debates about skeptical arguments as they occur across philosophical traditions, and there is much more that could be discussed. It should, however, suffice to show that there is an interesting question to ponder: namely, the question of why skepticism—as well as resistance to it—is in some sense a cross-cultural phenomenon. The remaining sections of this chapter are intended to address this question, if naturally in a programmatic way, with the aim of beginning a discussion rather than settling the matter. Specifically, drawing on conceptual metaphor theory, as well as literature on epistemic feelings, I pursue the possibility that the view that "BELIEVING IS KNOWING" is a primary conceptual metaphor is promising in this regard.

2. Conceptual Metaphor Theory, Primary Conceptual Metaphors, and BELIEVING IS KNOWING

2.1 Conceptual Metaphor Theory

George Lakoff and Mark Johnson first propose conceptual metaphor theory in their seminal work *Metaphors We Live By* (Lakoff and Johnson 1980). Here, they argue for several provocative theses that have since received a great deal of attention, the most important of which for our purposes are the following. First, far from being a fairly uncommon, poetic use of language—a matter of extraordinary rather than ordinary language—metaphor is pervasive in everyday speech. Second, while many consider metaphor to be a merely linguistic phenomenon—a matter of words rather than thought or action—there is reason to think that the situation is otherwise. Third, many of our concepts—as opposed to just our expressions—are fundamentally metaphorical in nature (Lakoff and Johnson 1980: 3).

In order to motivate these claims, Lakoff and Johnson rely primarily on linguistic evidence, providing a variety of purported examples of metaphorical concepts that they take to both i) arise at the level of thought rather than language and ii) qualify as sufficiently commonplace so as to count as ordinary rather than extraordinary. To grasp what it could mean for a concept to be metaphorical and for such a concept to play a crucial

role in determining how we think, act, and talk, let us start, as they do, with the concept of an ARGUMENT and the conceptual metaphor ARGUMENT IS WAR. (Note that here,"ARGUMENT" refers to the concept of an argument, "WAR" refers to the concept of war, and "ARGUMENT IS WAR" expresses a metaphorical mapping between the concepts, with the source domain (the domain doing the characterizing) being WAR and the target domain (the domain being characterized) being ARGUMENT.)

According to Lakoff and Johnson (1980: 4), this metaphor is reflected in everyday language by expressions such as:

> Your claims are *indefensible*.
> He *attacked* every *weak point* in my argument.
> His criticisms were *right on target*.
> I *demolished* his argument.
> I've never *won* an argument with him.
> You disagree? Okay, *shoot*!
> If you use that *strategy*, he'll *wipe you out*.
> He *shot down* all my arguments.

It should be emphasized that, on Lakoff and Johnson's view, it is not the case that arguments are subspecies of wars. After all, the essence of metaphorical interpretation, they claim, is understanding or experiencing one kind of thing in terms of another. Arguments and wars are different kinds of things (verbal discourse and armed conflict, respectively), and the actions performed while engaging in them are different kinds of actions. The point is rather that ARGUMENT is partially (but not completely) understood, performed, and talked about in terms of WAR (Lakoff and Johnson 1980: 4–6). And, there are many other plausible examples of such conceptual metaphors besides.[19] Just a few of Lakoff and Johnson's proposals include: TIME IS MONEY, IDEAS ARE FOOD, THE MIND IS A MACHINE, LOVE IS A JOURNEY, and THEORIES ARE BUILDINGS (Lakoff and Johnson 1980).[20]

2.2 *Primary Conceptual Metaphors*

Conceptual metaphors are widely considered to come in at least two varieties: primary and complex. Following Joseph Grady (Grady 1997), primary conceptual metaphors can be roughly characterized as conceptual metaphors that are directly based on universal—or nearly so—bodily experiences. They are taken have two core features. First, they are considered to be embodied in that they are thought to result from the co-occurrence of common subjective and sensorimotor experiences. Second, they are held to be universal (or at least widespread) in the sense that they tend to be shared by people regardless of their geographical or cultural origins. It is easy to see how these two features are connected.

If primary metaphors are grounded in ordinary subjective and sensori-motor experiences, it is clear as to why these metaphors would thus arise spontaneously in many cultures around the world. How primary metaphors arise is often explained in terms of Christopher Johnson's *theory of conflation*, which concerns the course of learning. On Johnson's account, it is held that for young children certain subjective experiences and judgments, on the one hand, and sensorimotor experiences, on the other, are so regularly conflated—that is, undifferentiated in experience—that for a time children do not distinguish between the two when they occur together. For example, for an infant the subjective experience of affection is typically correlated with the sensory experience of warmth: namely, the warmth of being held. During a period of *conflation*, associations are automatically built up between the two related conceptual domains (i.e., AFFECTION and WARMTH). Later, during a period of *differentiation*, children are able to separate the domains. Even once this occurs, however, the original cross-domain associations persist. These persisting associations are the mappings of a conceptual metaphor along the lines of AFFECTION IS WARMTH that will sometimes lead the same infant, later in life, to speak of, say, a "warm smile" (Lakoff and Johnson 1999: 46). Complex metaphors are then held to result from combining primary metaphors into a larger conceptual structure that may include aspects of cultural models and folk theories (Lachaud 2013: 10) and are often formed by *conceptual blending* (Lakoff and Johnson 1999: 49).

2.3   BELIEVING IS KNOWING *as Primary Conceptual Metaphor*

We are now well-positioned to address the question of why one might think that BELIEVING IS KNOWING is a primary conceptual metaphor. Let us begin by reflecting on the fact that many have a fairly strong pre-theoretic intuition to the effect that knowing requires certainty, or immunity from error.[21] Certainty is something that we often *feel* as if we have. Nearly all of us, I expect, are familiar with such sensations of certainty. Indeed, considerations along these lines have led many philosophers to differentiate between *objective* and *subjective* or *epistemic* and *psychological* certainty.[22] What is more, these feelings are not unique to any particular group of people; rather, there is a growing body of research that suggests that fallible feelings of certainty, conviction, and related sensations that can comfortably be characterized as *epistemic feelings* ("E-feelings" for short) are universal in the sense that they transcend geographical and cultural boundaries (cf. Nagel 2007; Burton 2008; Arango-Muñoz 2014). What is more, as Santiago Arango-Muñoz notes:

> Some E-feelings are non-conceptual experiences. This means that the subject neither needs to possess mental concepts nor needs to be

able to apply them in order to have this kind of experience (Roberts, 2009; Tye 2000, 2005). For example, feeling certain of something does not consist in having second-order thoughts about oneself . . . or self-ascribing the concept of certainty. A subject does not need to possess the concepts of CERTAINTY or UNCERTAINTY in order to undergo E-feelings such as feeling certain or uncertain about something (Proust 2007, 2009a, 2009b). Some living beings that lack both the mindreading capacity and mental concepts (who are thus unable to introspect), such as young children and non-human animals (Bermudez 2009; Carruthers 2008), are able to have these kinds of feelings and to exploit them in order to control some of their cognitive activities such as remembering or perceiving (see Hampton 2001; Smith 2009, on animals; on young children, see Balcomb and Gerken 2008). In other words, undergoing an E-feeling does not [necessarily] constitute an exercise of introspection. A subject only needs to possess a kind of sensitivity . . . to his or her cognitive processing that allows him or her to engage in intentional behaviors accordingly.

(Arango-Muñoz 2014: 198)

Moreover, as Jennifer Nagel points out, a variety of studies suggest that there are many cross-cultural commonalities in the development of epistemic evaluations. As she writes:

For example, one feature of epistemic evaluation that has appeared in every culture studied is a sharp progression in young children's capacity to see others as having false beliefs. Emergence of this capacity has been studied in a great range of settings, from urban daycare centers in New York and Tokyo to indigenous non-literate communities in Peru and Cameroon. Across all cultural groups, the ability to grasp the notion of false belief has been found to emerge between the ages of three and five (Wellman et al. 2001). In the classic false belief test, a treat is hidden in a box in the presence of the child and a third party ('Max'). Max then leaves the room, and the treat is moved to another location in the sight of the child, say, a drawer. The child is then asked where Max will look for the treat when he re-enters the room. Overwhelmingly, three-year-olds fail this test: they say that Max will look in the drawer, where the child herself knows the treat is now located. Five-year-olds pass: they keep track not only of the present location of the treat, but also of Max's (now false) belief (Wimmer and Perner 1983). The switch from fail to pass is not the product of a general early incapacity to think about the minds of others—even at the age of eighteen months, a child can readily grasp the notion that others have desires different from those of the child (Repacholi and Gopnik 1997)—but a more specific development in the understanding of belief. Very young children seem to assume

that the world is transparent to others, and have a strong tendency to over-ascribe knowledge (Mossler et al. 1976); older children can keep track of the ways in which others are mistaken, and in predicting the actions of others are able to make use of the concept of a belief as a state which may or may not be an accurate reflection of reality.

(Nagel 2007: 811–812)

She also points out that:

Although much empirical work on epistemic assessments focuses on the early development of children's theory of mind, psychologists and linguists have also studied later developments. In a study comparing understanding of mental state verbs like 'know' in third-graders, sixth-graders, and adults, Rachel Falmagne found evidence of systematic ongoing refinement in our grasp of the meaning of these words (Falmagne et al. 1994). Mental state verbs can be organized according to how much confidence they express: on such a ranking, 'was sure' rates higher than 'assumed'. Mental state verbs can also be organized according to their logical properties, like factivity. . . . What Falmagne found was that in assessing reports of the beliefs of others, confidence mattered more to younger subjects and logical properties mattered more to the older ones. From a sentence like 'Carl was sure that Bill had bought a new skateboard' third graders will readily infer that Bill had in fact bought a new skateboard; adults are much less inclined to do this. As we mature, our understanding of the meaning of 'knows' comes to reflect a better grasp of the differences between feeling sure about something and knowing it, and the logical property of factivity comes to play an increasingly important role in our understanding of knowledge.

(Nagel 2007: 816)

Armed with these sorts of observations, we can construct a highly speculative but nonetheless promising story about how a primary conceptual metaphor along the lines of BELIEVING IS KNOWING may have arisen.[23] Just as experiences of affection are often accompanied by a sensation of warmth, experiences of thinking-true—or (for our purposes here) believing—are often accompanied by a sensation of certainty: or, what we might call a *literal* feeling of knowing.[24] And this is what led us to characterize both in the manner that we do: that is, AFFECTION as WARMTH, and (certain kinds of) BELIEVING as KNOWING. For an infant, the story might go, the subjective experience of thinking-true is typically correlated with the sensory experience of psychological certainty or (literally) feeling as if one knows. During a period of conflation, associations are automatically built up between the two related conceptual domains

(i.e., BELIEVING and KNOWING). Later, during a period of differentiation, children are able to separate the domains. Even once this occurs, however, the original cross-domain associations persist, forming the mappings of a conceptual metaphor along the lines of BELIEVING IS KNOWING that will sometimes lead the same infant, later in life, to speak of their and others' believing as knowing.[25]

Of course, that would not mean that such believing is in fact knowing, any more than affection is in fact warmth. Nor would it mean that we regard such believing as (literal) knowing, any more than we regard affection as (literal) warmth. We can see how psychological certainty or (literal) feelings of knowing may have led us to characterize some instances of believing as instances of knowing, just as we can see how feelings of warmth may have led us to characterize some displays of affection as instances of warmth: phenomenology plausibly led the way. However, we can also see why we might not think that the instances of believing that we are inclined to characterize as instances of knowing really are that—after all, claims to the effect that they really are knowing are easily called into question by skeptical arguments. In other words, the basic idea is that, once we carefully reflect on our epistemic situation, we eventually come to realize that what we are inclined to call knowing possibly could not be such a thing, despite our feelings to the contrary (not that we ever really thought that it was following the relevant period of differentiation, any more than we ever thought that displays of affection really were instances of warmth following the relevant period of differentiation).

Still, as we have seen, none of this would preclude the possibility that we metaphorically characterize believing in terms of knowing (even if we are in some important sense unaware of this), nor would it impugn the usefulness of the resulting characterizations. For it may nonetheless be very useful to think, act, and talk *as if we know*—to use terms like "knows" and "knowledge" metaphorically to characterize some of our beliefs or instances of believing. Why? For the same sorts of reasons that typically encourage the use of metaphor: to allow us to better understand one thing by understanding and experiencing it in terms of another, to evoke associations and sentiments, to reduce cognitive load, and so on. Using "knows" and "knowledge" metaphorically also may encourage us to be curiously skeptical, rather than paralyzed by doubt; as such it may permit us to act as if we are immune from error (at least to an extent, just as conceiving of arguments in terms of war permits us to act as if arguments are war, at least to an extent), thereby allowing us to avoid the pitfalls of excessively entertaining doubts while at the same time shielding us from the dangers of dogmatism.[26] What is more, perhaps we just cannot help ourselves from conceptualizing our beliefs in this way (given the conceptual metaphor's basis; see Table 7.1), even if we recognize that doing so is potentially misleading and even dangerous in certain kinds of ways.

Table 7.1 Hypothesized Account of Metaphor Introduction for Affection is Warmth and BELIEVING IS KNOWING

Metaphor	Event	Associated Phenomenology	Characterization of the Target Object
AFFECTION IS WARMTH	Being held	Sensation of warmth	Instance of warmth
BELIEVING IS KNOWING	Thinking-true	Sensation of certainty; i.e., (literal) feeling of knowing*	Instance of knowing

I propose to understand sensations of certainty and feelings of (literal) knowing as being one and the same thing. However, one might take issue with this on the grounds that BELIEVING IS CERTAINTY is more plausibly a primary metaphor than is BELIEVING IS KNOWING because sensations of certainty—rather than feelings of knowing—are better candidates for the subjective or sensorimotor basis of the relevant metaphor. I am not sure that this right, but even if it were, one might think that BELIEVING IS KNOWING is nonetheless a conceptual metaphor, albeit perhaps a slightly more complex one that arises from an identification of (literal) knowing with certainty (and perhaps even a primary conceptual metaphor along the lines of KNOWING IS CERTAINTY), which might be supported by the same fairly powerful and common pre-theoretic intuition noted earlier in connection with the claim that knowing requires certainty.

If something approximately like the above story is correct, then we can see why BELIEVING IS KNOWING might well be a primary conceptual metaphor: it is plausibly grounded in feelings that are universal in the relevant sense. We can also see how the claim that BELIEVING IS KNOWING is a conceptual metaphor could be supported by linguistic evidence similar to that which Lakoff and Johnson marshal in support of their claim that ARGUMENT IS WAR is a conceptual metaphor. For BELIEVING IS KNOWING is plausibly reflected in our everyday language by expressions such as:

I can *assure* you that I'm correct.
This is *sure* to be the answer.
I *cannot* be wrong.
It is *impossible* for me to be mistaken.
There is *no doubt* about it.
I am *guaranteed* to be right on this one.
This is *certain* to be the case.
I *know* this much to be true.

Granted, hearing these—and especially the last sentence in the list—as metaphorical might be a bit more difficult. But, that is to be expected if

BELIEVING IS KNOWING is a primary conceptual metaphor. Compare, for example, the metaphorical expressions that issue from another primary conceptual metaphor, UNDERSTANDING IS SEEING, such as, "I see what you mean."

There are, however, a variety of less-controversially metaphorical uses of "knows." Here are a few specific examples, grouped into categories (though goodness knows—or "knows"—that there are so many more):

> *Hindsight*: We are generally inclined to attribute knowledge to ourselves when it is suggested to us that our beliefs were true even if we lacked anything like sufficient evidence in the first place, as in: "I knew it (all along)!" "I knew you'd say that."
>
> *Hunches, predictions, and encouragement* (about the present or future, also lacking evidence): "I know you're lying to me!", "I know he's annoyed with me for what I did the other day," "I know how this is going to end," "I know you'll do great!" "I know everything will be okay, and so do you."
>
> *Falsehoods*: "Forget everything you know about mattress covers!" "Everyone knew that stress caused ulcers," "Everything I knew about him was a lie."
>
> *Machines, and other inanimate objects*: "Big Blue knows where your queen is," "Google knows that I searched for such-and-such yesterday," "Sometimes autocorrect knows just what to do."
>
> *Scientific characterizations*: "Genes know when the seasons change," "Genes know their left from their right," "Cells know when to divide."

Given such examples, one might think that a unified theory of ordinary uses of "knows", on which it is held that they are largely metaphorical, may well be simpler and hence preferable to many explanations of variability in our use of terms like "knows," especially given the promising developmental story sketched previously. What is more, it can be argued on independent grounds that knowledge-talk is generally non-literal and plausibly metaphorical in particular.[27] After all, much work in epistemology is devoted to explaining (or, explaining away) the appeal of skeptical arguments, as well as the fact that it also often seems as if we use knowledge-attributing sentences to express truths.[28] Further, more recently, philosophers have sought to explain other kinds of variability in our use of knowledge-attributing sentences besides, such as the kinds of variability that occur as a result of changing what is at stake or the salience of alternative possibilities. And although mainstream explanations of such tensions in our use of knowledge-attributing sentences have been literalist in nature, non-literalist approaches—such as the one motivated here—offer interesting alternatives, underdeveloped in this domain, that promise to shed light on these elusive problems. Because of this, they are well worth further investigation.[29]

3. BELIEVING IS KNOWING **and Our Three Questions**

Before we go on, a quick word should be said about the content that we might typically metaphorically convey when we use sentences of the form "S knows p" (and the like), if we do not generally regard many instances of believing as (literal) instances of knowing. Of course, given that metaphor is a deeply context-sensitive phenomenon, we should expect for it to be very difficult (if possible at all) to provide a completely general account of what we use sentences of the form "S knows p" to metaphorically convey—or, in other words, what salient features of KNOWING (the source domain) get mapped onto BELIEVING (the target domain) when we employ the BELIEVING IS KNOWING metaphor. That said, some typical salient features are apt to be picked out by propositions along the lines of: that S truly believes p, that S is justified in believing p, that S believes p as a result of a reliable belief-forming process, that S can rule out all relevant alternatives to p, that S can assert p, that S can rely on p in practical reasoning, and so on—that is, just those propositions that have traditionally been thought by philosophers to be somehow involved with knowing or with knowledge.[30] However, it should be emphasized that these do not even come close to exhausting the kinds of propositions that we can use sentences of the form "S knows p" to metaphorically convey.[31] Indeed, the fact that there is such an expansive and elusive array of such propositions may help to explain why epistemologists have struggled to the degree that they have in specifying the truth-conditions of knowledge-attributing sentences or the criteria for knowing.

Let us now return to the three questions with which we began. How might the view that BELIEVING IS KNOWING is a primary conceptual metaphor be used to offer a unified (if partial) response to them?

Regarding the first question, skeptical arguments can be especially appealing when "knows" is interpreted literally.

When "knows" is interpreted literally (say, as requiring something along the lines of objective or epistemic certainty), skeptical arguments may seem sound. Their premises can strike us as true, and their reasoning can strike us as valid.

Regarding the second question, skeptical arguments can be especially difficult to accept when "knows" is interpreted metaphorically.

When "knows" is interpreted metaphorically, skeptical arguments may seem unsound. Why might this be? If "knows" is interpreted metaphorically in sentences of the form "S knows p" (say, in the service of conveying propositions along the lines of: that S truly believes p, that S is justified in believing p, that S believes p as a result of a reliable belief-forming process, that S can rule out all relevant alternatives to p, that S can assert p, that S can rely on p in practical reasoning, and so on), it is often unclear as to whether skeptical arguments are sound, and it will quite frequently seem as if they are not.

To see this more clearly, consider the following skeptical argument (which employs a skeptical hypothesis):

1. I know that I am drinking coffee
2. If I know that I am drinking coffee, then I am in a position to know that I am not a brain-in-a-vat
3. I am not in a position to know that I am not a brain-in-a-vat
4. 1–3 cannot all be true
5. Therefore, I do not know that I am drinking coffee

Say that "know" is metaphorically interpreted here as "truly believe." If so, 1 could easily be true, and 3 could easily be false. If "know" is interpreted as "can rule out all relevant alternatives to," then 2 could easily be false. If "know" is interpreted as "believe as a result of a reliable belief-forming process" 1 could easily be true, and 3 could easily be false. And so on.

Regarding the third question, skepticism (as well as resistance to it) may well be widespread at least in part because BELIEVING IS KNOWING *is plausibly based on near-universal sensations of certainty or (literal) feelings of knowing.*

If something approximately like the above story is correct, it is easy to see how a primary conceptual metaphor along the lines of BELIEVING IS KNOWING could have naturally and spontaneously arisen around the world (that is, after all, a distinguishing feature of such metaphors) and thus why it is that skepticism (as well as resistance to it) is a cross-cultural phenomenon (insofar as the answers provided to the first two questions posed above prove sufficiently compelling). For not only is the operative metaphor plausibly widespread due to the fact that it is based on near-universal sensations of certainty or (literal) feelings of knowing, but its *occlusion* is plausibly widespread as well, as subjects are typically in an important sense unaware of the primary conceptual metaphors that they employ. What is more, subjects are likely to extend this primary conceptual metaphor in many kinds of distinct ways—which, if true, might help to explain a number of *differences* between various skeptical debates as well as similarities, as well as a number of differences between uses of "knows" and equivalent or at least similar verbs in other languages.[32]

4. Conclusion

Admittedly, this account of how a primary conceptual metaphor along the lines of BELIEVING IS KNOWING could have been introduced, as well as how it might factor into discussions about whether knowing is possible needs to be fleshed out a great deal if it is to prove convincing. But it is an account that may well turn out to be true, at least in the broadest of outlines. Because of this—in addition, of course, to the fact that it

may offer a unified (if partial) explanation of the widespread attraction (and aversion) to skeptical arguments and potentially even skepticism and anti-skepticism more generally construed (as well as other kinds of variability in our use of knowledge-attributing sentences)—it warrants further investigation.

If nothing else, however, I hope to have drawn more attention to the possibility that philosophers should take the cross-cultural challenges that debates about skepticism pose more seriously. Epistemologists have generally been keen to offer explanations of why skeptical arguments are difficult to accept, with many in recent years endeavoring in addition to offer explanations as to why they are in some sense appealing as well. However, the cross-cultural aspects of skepticism have typically been woefully ignored. And, I hope to also have convinced readers that the view motivated here, unlike the dominant extant approaches, has at least explicitly begun to address these challenges (if naturally in a programmatic way at this point) and that others should consider following suit in at least this regard.[33]

Acknowledgements

Notes

1. For contemporary work on the cross-cultural nature of skepticism, see, for starters, Kjellberg 1996; Raphals 1996; Garfield 2002; Dreyfus and Garfield 2010; Mills 2016a, 2016b; Chung 2017. Note that in saying this I do not wish to rule out the possibility that philosophers working in still other traditions besides the ones mentioned have also proposed—and attacked—such arguments.
2. At least among philosophers, if not "the folk," as it were.
3. Regarding this notation, George Lakoff has this to say: "To make it easier to remember what mappings there are in the conceptual system, Johnson and I adopted a strategy for naming such mappings, using mnemonics which suggest the mapping. Mnemonic names typically (though not always) have the form: TARGET-DOMAIN IS SOURCE-DOMAIN, or alternatively, TARGET-DOMAIN

AS SOURCE-DOMAIN" (Lakoff 1993: 4). I follow them in utilizing this strategy. Note that the source domain is the concept used to metaphorically characterize, and the target domain is the concept that is metaphorically characterized, in a conceptual metaphor.

4. For more on why such a view qualifies as a form of epistemic fictionalism, see Chung 2018.

5. For example, while my investigation here is focused on forms of skeptical arguments that seem to derive their force primarily from epistemic principles, there are others that seem to derive their force primarily from principles that are perhaps better described as metaphysical principles that have epistemic consequences. Such arguments include what might be termed *arguments from the nature of language*, which are designed to call claims to know into question by demonstrating that language cannot be trusted, as far as ascertaining or expressing truth is concerned. The best-known contemporary discussion of such an argument can plausibly be found in Kripke's (Kripke 1982) discussion of Wittgenstein on rules and private language. However, such skeptical arguments are plausibly more popular in Asian philosophies and play a more prominent role there than do ones that concern epistemic principles *per se*. If this is indeed so, the question naturally arises as to why it is. And there are undoubtedly many other intriguing associated questions to be addressed besides.

6. Ziporyn renders this as "Equalizing Assessments of Things" with a note that an attempt is made to preserve the ambiguity of the original, as it can be parsed as meaning either "Assessments that Equalize Things" or "Equalizing Assessments Made by All Things and, by Extension, All Things So Assessed" (Ziporyn 2009: 9, n. 1).

7. For the purposes of this chapter, in keeping with a common practice, I will be using "the *Zhuangzi*" and "Zhuangzi" more or less interchangeably. For even if the *Zhuangzi* was not written by a single person picked out by the name "Zhuangzi," it might still be interpreted as somehow suggesting a view that could have been expressed by such a person.

8. Ziporyn notes in his translation that this sentence is phrased in the gnomic diction of a dream prognostication text, possibly quoting a well-known folk belief.

9. Chakravarthi Ram-Prasad 2002, e.g., is inclined to read Vasubandhu as an idealist, whereas Mills 2016b is inclined to read him as (being closer to) a skeptic.

10. Since the *Vigrahavyāvartanī* is better known by this title, I will use this name here, rather than its translated title.

11. For discussion of the history of such arguments, see Weintraub 1995, 2006; Wright 2004; Coliva 2015; Chung 2017. For discussion of the history of skepticism as regards scientific method more broadly, see Keller 1997.

12. Note that these arguments are made more detailed and continue through verse 51 of the text.

13. Interestingly, Pyrrho is also said to have traveled to India with Alexander, where he encountered the *gymnosophs*—otherwise known as the "naked philosophers"—after which he is said to have adopted his distinctive skeptical outlook, which was perhaps based on Indian philosophy (possibly Buddhist) that he learned about while on his journey (cf. Raphals 1996; Kuzminski 2008). This, however, remains controversial.

14. Floridi is careful to note, however, that: "This does not mean that we should see the Middle Ages as 'the Age of Faith,' incapable of entertaining skeptical doubts because dogmatic, gullible, irrational, or merely acritical . . . in those eight centuries we encounter, for example, a large variety of forms of unbelief, in many cultural contexts. The point is that the Middle Ages show

no driving interest in skeptical arguments within the restricted philosophical and theological debates that may address issues concerning the nature and reliability of knowledge, when discussing ethical, religious, and epistemological questions at 'a theoretical level'" (Floridi 2008: 269).

15. Note that this distinction is, like the distinction between Pyrrhonian and Academic skepticism, fraught. For more detail, see Dreyfus and McClintock 2003.

16. For more detail, see Mills 2016b; Phillips 2017.

17. See also Dreyfus and Garfield 2010.

18. Sturgeon in particular asks the question, "Is the *Zhuangzi* guilty of committing the fallacy which the Mohists accuse it of 'declaring all doctrine perverse'—itself a perverse doctrine?" (Sturgeon 2015).

19. There are so many, indeed, that Lakoff and Johnson are led to claim on the basis of them that *most* of our ordinary conceptual system is metaphorical in nature (Lakoff and Johnson 1980: 4), although one obviously need not follow them in endorsing this strong claim in order to endorse the view that there are conceptual metaphors.

20. What exactly is a metaphor, on this sort of view? According to Lakoff, the word "metaphor" has come to be used differently by those who study conceptual metaphor than it has been used traditionally. For these theorists, "metaphor" has come to mean *a cross-domain mapping in the conceptual system* (rather than a figure of speech), whereas "metaphorical expression" refers to a linguistic expression that is taken to be the surface manifestation of such a cross-domain mapping (which is what Lakoff claims "metaphor" traditionally picked out). What typically makes an expression metaphorical, then—at least if we are talking about a commonplace or conventional metaphor—is that it is a verbalization of an inherently metaphorical thought, a thought constructed in the first place on the basis of a conceptual metaphor such as ARGUMENT IS WAR (Lakoff 1993: 1–2). Lakoff argues in addition that poetic metaphor is, for the most part, an extension of our everyday, conventional system of metaphorical thought, often requiring an array of conceptual metaphors for its construction in thought and language (Lakoff 1993: 40).

21. Although to what degree this is so is a matter of some controversy. On whether knowing might require infallibility, see, e.g., Unger (1975), Williamson (2000), Dutant (2007, 2015), and Climenhaga (forthcoming). Some recent empirical work also suggests that a core folk concept of knowledge may be infallibilist, on the basis of an experimentally observed "certainty effect" in knowledge ascription (Machery 2016; Waterman et al. 2018). Note, however, that infallibilism on its own may not mandate skepticism, or *vice versa*: some versions of infallibilism, such as that proposed in Williamson (2000), are meant to be anti-skeptical, and many types of skeptical arguments can be supposedly formulated so as to impugn degrees of epistemic support that fall far short of infallibility.

22. See, e.g., Reed, 2011.

23. Note here that "believing" is intended to pick out any epistemic state that involves "believing without knowing," as many of the relevant epistemic states are plausibly (as yet) unnamed in English.

24. This qualification is added as we should expect the term "feeling of knowing" to pick out a broad range of feelings if knowledge-talk were indeed largely metaphorical.

25. Though not all of them, of course, just as, say, not all displays of affection are spoken of in terms of warmth.

26. Indeed, this might help to explain the value of an infallibilist conception of knowledge and accord with the idea that we should take the value of knowledge into account when theorizing about what it—or epistemology more

broadly—involves or should involve (Cf. Craig 1990; McGrath 2015; Hazlett 2018; Ryan and Mi 2018; Turri 2018).

27. For example—and just for starters—Schaffer 2004 defends the claim that knowledge-talk is generally hyperbolic, Davis 2007, 2015 defends the claim that knowledge-talk is quite often loose, and Chung 2018 defends the claim that knowledge-talk is possibly largely non-literal (without taking a stand on the type of non-literality involved).

28. And knowledge-denying sentences to express falsehoods. In what follows I will generally only speak of knowledge-attributing sentences; however, this restriction would have to be removed in a final analysis.

29. For more on this, see Chung 2017, 2018.

30. The candidates provided here are mentioned because, for each, there is a wealth of literature arguing that it, e.g., is a truth-condition for sentences of the form "S knows p," and among the fictionalist's key insights is that many of these supposed, e.g., truth-conditions may rather be part of the multitude of propositions that we in fact non-literally assert when we use sentences of the form "S knows p."

31. As a note, it will likely often be indeterminate as to which proposition or propositions we convey, as speakers' intentions are often insufficiently specific to determine, with any precision, just what proposition or propositions they are asserting, especially when they are speaking metaphorically (cf. Walton 1993; Soames 2002).

32. For more on similarities and differences between uses of "knows" and equivalent or at least similar verbs in other languages, see, for example, a variety of papers in the previous volume of this series: (Mizumoto et al. 2018); Arakawa and Mizumoto 2018; Ganeri 2018; Iida 2018; Machery et al. 2018; Matthewson and Glougie 2018; Mizumoto 2018; Tsai and Lien 2018; Turri 2018; Waterman et al. 2018; Wierzbicka 2018.

33. This of course is not to say that mainstream epistemological views cannot address these challenges. Rather, it is only to say that they have not generally explicitly engaged with them to any significant degree. Moreover, since *ceteris paribus* a unified explanation of the appeal (and lack thereof) of skeptical arguments should be preferred to piecemeal explanations, explanations that endeavor to explain disagreements about skeptical arguments as they occur in a variety of cultural contexts promise to have a certain kind of advantage over theories that do not.

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8   Delusions Across Cultures

Dominic Murphy

Introduction

If there are interesting things to say about knowledge and belief across cultures, there should also be interesting things to say about delusions, because the attribution and understanding of delusion employs many of the techniques and concerns of epistemology. The philosophical tradition has sought for the properties that legitimate beliefs. Within psychiatry, theorists try to find that extra property of a false belief that converts it from a false belief into a delusion. There should be something that not only fails to legitimate a belief but also shows it to be pathological. Radden (2011) argues that this philosophical treatment of delusion has grown up alongside Cartesian and post-Cartesian epistemology. Seen in this light, the project of explaining delusions looks like the inversion of the familiar attempts made by modern epistemologists to define knowledge. I discuss it in section 1, where I introduce the current concept of delusion and say what I think its role is. I also discuss the suggestion that humans have a shared, evolved folk epistemology. If that is correct, delusions might be universal, in the sense that they represent departures from the correct functioning of what I will call folk epistemology, and I'll say something about what I mean by that. In section 2 I address delusion in a particular context, namely, cross-cultural psychology. I introduce some distinctions among ways of understanding psychopathology as either universal or culturally particular. I conclude that delusions could be a characteristic product of modern habits of thought, not a universal phenomenon detected by folk epistemology.

1. Delusion

1.1 Introducing Delusion

Recent philosophical discussions of delusion have tended to assume that 'delusion' denotes a psychological kind whose basic cognitive structure (though not the underlying anatomy or physiology) can be worked out

via attention to paradigm cases. So understood, delusion comes before us as a natural kind whose structure we can discern and whose causal story we can tell. Let me call this the explanatory project. In broad terms, the explanatory project tries to characterize delusions as caused by failures of normal relations among components of our cognitive architecture. It is the philosopher's job to provide an abstract specification of the sorts of processes that go awry in cases of delusion, drawing on a general picture of the sorts of things that we think go on when people normally form warranted beliefs. Belief formation relies on subpersonal processes, but the explanatory project should not be seen as an attempt to uncover specific systems; it just attempts to say what processes take place, not how they are realized.

In consequence, analyses of delusion, as Radden (2011) noted, resemble fragments of post-Cartesian epistemology. They look like inversions of the attempts made by epistemologists to define knowledge. A delusion is a false belief, just as knowledge is true belief, but, as with knowledge, philosophers do not rest there. Knowledge is true belief plus something else. So too, philosophers and psychiatrists try to find that extra property of a false belief that converts it from a mere false belief into a delusion. This conceptual program is seen as the prelude to the development of empirical theories of delusion, in which philosophers work alongside cognitive scientists.

My starting point, in contrast, will be not the analysis but the attribution of delusion; I want to identify a distinctive role that's played by the attribution of delusion as marking a place where ordinary explanation of a belief runs out. People can believe things on rational or irrational grounds, but in both those cases we can make room for the belief in our ordinary expectations about human epistemic conduct. In delusions we can't. Before getting to that, though, I begin with the definition of delusion.

1.2 The Definition of Delusion

The concept of delusion, like many philosophical and psychological concepts, is employed in everyday speech and also has a precise, though contested, clinical and scientific definition, which I will discuss directly. That definition has bred a lot of skepticism, and there have been attempts within recent philosophy to arrive at a superior concept of delusion. This conceptual program is typically seen as the prelude to the development of empirical theories of delusion by clinicians and cognitive scientists. Some philosophers (e.g. Gerrans 2014) see delusions as imaginative states and are suspicious of attempts to understand delusion as a species of belief. However, the dominant preoccupation shaping recent philosophical discussions of delusion has been the doxastic conception of delusion. The doxastic conception construes delusions as a type of belief, although

what this means precisely is controversial (Bortolotti 2010). Most philosophers start from the existing clinical definition, which says that a delusion is a false belief. But of course not just any old belief, no matter how remote from the truth, is a delusion. So, philosophers and others who participate in the explanatory project have sought for those features of a delusion that make the difference. They look for the features that, when they exist alongside a false belief, make it a delusion—not just an epistemic error but a pathology.

The definition of delusion in in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V: American Psychiatric Association 2013: 87) specifies that delusions 'are fixed beliefs that are not amenable to change in the light of conflicting evidence' and goes on to list their clinical varieties. On the face of it, that is a terrible definition that includes all manner of normal beliefs, since the existence of some contrary evidence is compatible with the firm holding of a belief. The point, as the passage goes on to note, is that the difference between a strongly held belief and a delusion 'depends in part on the degree of conviction with which the belief is held despite clear or reasonable contradictory evidence regarding its veracity'. So, a delusion is a belief held with undue conviction. Again, this seems very broad.

Interestingly, in the glossary DSM-V offers another, not wholly compatible, definition of delusion. It says that a delusion is a

> false belief based on incorrect inference about external reality that is firmly sustained despite what almost everyone else believes and despite what constitutes incontrovertible or obvious proof to the contrary. The belief is not one ordinarily accepted by other members of a person's culture or subculture (e.g., it is not a chapter of religious faith).

This second definition is a reprint of the definition in DSM-IV-TR (American Psychiatric Association 2000) and is very like the one found in psychiatric textbooks (e.g. Sadock and Sadock 2007).

Definitions like these are currently used by practitioners, though it is widely acknowledged that the definition doesn't really discriminate delusions from other beliefs. In addition, psychiatrists routinely count some mental phenomena as delusions even though they break one or more of the conditions of the definition, so no definition is entirely satisfactory. However, what is of interest here is that the definition takes an epistemic understanding of delusions as unwarranted beliefs and then qualifies it: what might otherwise seem to be a delusion is in fact not a delusion if we see it as culturally appropriate. There is something odd about this parenthetical acknowledgement of religion or other culturally sanctioned beliefs as non-delusional. Why should a false, incorrectly inferred belief suddenly come to be non-delusional just because the surrounding culture goes along with it?

1.3 *The Attribution of Delusion*

I think we miss the significance of this nod to culture if we follow the explanatory project's stress on delusions as epistemic phenomena. They are not really epistemic in the narrow sense of 'epistemic' according to which the explanatory project of understanding delusions can look like the project of analyzing knowledge. The cultural appropriateness qualification directs our attention away from justification and truth and toward the way beliefs are acquired. The concept of delusion acknowledges that some classes of religious or other culturally apt beliefs, no matter how strange or arbitrary they may appear, are not delusional. They aren't delusional because even if they are unwarranted they are a normal consequence of human development in a shared social context. Humans tend to accept or profess the religious beliefs of their culture or at least some shared religious belief. The same goes for other beliefs we expect people to pick up from those around them. Our expectations about normal belief formation include expectations about the kinds of beliefs people are likely to acquire as they mature. Since religion is ubiquitous, we can quite see how people might come to be religious, via straightforward cultural learning. And the cultural endorsement that attaches to beliefs like that is important, because we think that it is normal for people to pick up beliefs that we find weird if those beliefs are endorsed by the culture around them. It is not normal for us to arrive at equivalently weird beliefs all by ourselves in cultures that provide no support for such beliefs.

We all also recognize as normal those beliefs that are not justified by the evidence but are explicable given the class position, background, financial or personal interests, etc. of the believer. We expect partiality of all sorts, accept that it can influence belief formation without justifying it, and do not regard it as pathological. So there is room in our epistemic assessment of others for the part played by epistemically worthless factors. Many beliefs fit the DSM-V definition of delusion without being called delusion, because they can be explained by our prior expectations about how others will think and behave.

Pascal Boyer (2011) has defended the idea that all societies tend to attribute mental illness in the context of violations of intuitive expectations about human behavior. These expectations about human behavior derive from folk psychology. We should not just think in terms of the philosopher's notion of folk psychology as the interaction of belief and desire. There is, in every culture, a much broader conception of what normal human nature is like, and violations of this conception are taken to be evidence that somebody is mentally ill.

I conjecture that delusions are inexplicable beliefs, where 'inexplicable' means something specific: the failure of a belief to be accounted for by the ways in which folk epistemology, broadly construed, countenances the formation of beliefs. If this is on the right lines, then a cross-cultural

examination of the attribution of delusions might help us to understand the nature of folk epistemology as it varies across cultures.

Or perhaps folk epistemology doesn't vary, which would be a very interesting discovery. Why might it not vary? One reason would be that folk epistemology is a human universal. Suppose all cultures share, first, a conception of knowledge and second, ways of legitimating and otherwise explaining claims that something is known (and hence, epistemology assumes, true). If that were so then we would expect there to be widespread epistemic agreement. The sciences work something like this, forming an international community of knowers with broadly agreed norms governing the generation, testing, and confirmation of knowledge claims. If folk epistemic norms were shared across cultures in such a way then delusions might well be a human universal.

One preliminary before I discuss this possibility: I have spoken in this section about delusion and belief, rather than knowledge, but delusions are inter alia claims that something is or is not the case. That is, they typically look like assertions that the subject knows something. I assume that folk epistemology resembles philosophical epistemology in one respect, namely a concern with the legitimation of belief. I think that it also should be seen as overlapping with folk psychology, in that we accept the ubiquity of non-justified but also non-pathological beliefs based on folk expectations about how the mind works. In what follows, I will treat the core concern of folk epistemology as being the assessment of knowledge claims, both in terms of narrow epistemic justification and in terms of a broader fit with our expectations of how human minds work.

2. Folk Epistemology

My ideas about the attribution of delusion rely on positing a folk epistemology, at least with respect to the subjects that the DSM is concerned with—roughly, those treated by psychiatrists in the West. Turri (2018) has argued that folk epistemology is a human universal, built around a 'core primate knowledge concept' that we have inherited from our simian ancestors. Turri argues on the basis of comparative psychological evidence that this core knowledge concept is that of 'truth detection and retention' (p. 284) and perhaps some elementary forms of inference. Humans have inherited the primate social-cognitive system, and thus we share a species-typical knowledge concept.

This conclusion obviously doesn't follow from the existence of a primate knowledge concept, since we need reasons to believe that humans inherited it in something like the original form. Turri also appeals to experimental philosophy, adducing results (e.g. Machery et al. 2015) that suggest the existence of cross-cultural agreement on knowledge judgements.

If Turri is right, there is a universal knowledge concept common to members of all human communities in virtue of their shared primate

ancestry. If that's true we might expect the attribution of delusion to be very widely shared. Here's why: suppose that every human group is made up of people who inherited the primate knowledge concept and that they have an interest in policing it. Concepts mean norms, and norms need monitors. People who do not detect and transmit reliable information might be corrected or at least marked out by the rest of the group, and perhaps incorrigible failures would be graded as pathological. So, if there is a shared human knowledge concept then we should expect to see a shared folk epistemology and a shared interest in the people who fail to respect it.

As Turri notes, there are theorists who object to the idea that primate cognition really includes a concept of knowledge. Although comparative psychologists tend to use the term, we could always substitute 'proto-knowledge'. The argument over whether apes really have a knowledge concept strikes me as hard to resolve, but we can put it to one side. The point to make here is that if Turri is right, then a society could share the primate truth tracking and retention capacity even without explicitly defining and elucidating a knowledge concept. Such a society could also monitor and stigmatize failures to acquire and track truth in ways that indicate that the normal capacity is misfiring. This could be done even without an explicit concept of delusion. In sum, the conjecture would be that if there is a shared human folk epistemology then there would be a shared tendency to attribute delusions when resources for explaining deviant beliefs run out.

I want to raise two problems for Turri's account. The basic picture of a widely shared folk epistemology will survive in a highly qualified form. But my amendments will complicate the idea that there could be a universal concept of delusion. The upshot will be that we should expect folk epistemology to comprise several strands that could vary across cultures. In the next section I will attend to the ways in which we might decide whether delusions might be universal by looking at some general strategies for dealing with cross-cultural psychopathology.

First, then, I have already argued that a narrow focus on truth tracking and justification of belief misses the many ways in which we acknowledge that beliefs can be caused—but not justified—by psychological processes that are epistemically fragile. Nozick (1993) asks about a mother who persists in believing in her son's innocence despite his criminal conviction for murder. The evidence for his guilt is overwhelming. But she just doesn't believe that her son is guilty. Her belief is unwarranted, but how should we assess it?

Nozick (1993: 86) argues that she is not being irrational because the cost of believing he is guilty is so massive that it undercuts her 'credibility value' in the belief that her son really did it. We might prefer to judge that she is irrational but give her a pass anyway; perhaps she is irrational but not unreasonable or only being human. The crucial point though is

that we recognize that she has come by her belief about her son in a way that is thoroughly normal, even though it is not epistemically proper. Beliefs are often caused by processes that do not justify them; everyday cognition is notoriously prone to wish-fulfilment, bias, and the influence of factors like class position, ideology, or loyalty to a research program. However much we deplore it, we can make sense of it according to our normal ways of understanding human nature.

We can make sense of our readiness to accept these epistemically flawed yet fully human types of belief fixation if we admit that folk epistemology should be seen as a component of folk psychology. This requires us to expand folk epistemology beyond the narrow concern with knowledge that Turri offers, but it does not touch his main contention that a shared human capacity for assessing knowledge claims has been inherited from a primate system.

My second amendment to Turri's version of folk epistemology will be to the idea of a strong claim about universality. Specifically, I think that although a shared human social-cognitive system is likely to indeed be part of our cognitive architecture, that provides little support for the hypothesis of a more general concept of knowledge and a set of practices for assessing it that is shared across cultures. If such a concept and its attendant practices are to be found I suspect they are tied to much more recent advances in literacy and the cognitive foundations of industrial society. Turri thinks that the only possible evidence that can support his account is experimental (both in philosophy and in comparative psychology). This is because he thinks that the alternative to experimental evidence is simple intuition mongering, about which he is understandably skeptical. However, there is another option that he overlooks, viz anthropology. There is a long tradition of anthropological discussion of the ways in which human societies make and evaluate claims about the world, and these discussions complicate Turri's picture.

Following Gellner's (1988) summary (see also Crone 1989) we can accept that traditional societies consisted mostly of illiterate agrarian households or, prior to that, hunter-gatherers. These societies typically adhered to custom-bound, ritualized cognitive practices dominated not by the desire to get things right about the world but by social and religious concerns. Indeed, aspects of these cognitive systems are 'totally insensitive to the outside world' (Gellner 1988: 51). But since there must be some traffic with the outside world for humans to survive, there exist what Gellner calls 'periscopes' through which systems of concepts mostly attuned to ritual and social functions permit some feedback from the facts.

But in such societies our beliefs do not face the world, as Quine put it, as a corporate body. Rather, there are clusters of beliefs, insulated from one another. They have epistemic purposes but also other ones that can override the deliverances of nature when that seems called for. Each 'periscope' (as Gellner called it) offers access to the world outside the

social order, but they do not aim to be fully consistent with each other, nor to make the truth a priority. There are disjoint perspectives on the world governed more by constraints imposed by the social order than by external reality. There is no attempt to discipline cognition by reference to a 'referential unificatory truth' (p. 272).

That emerges with the scientific view of the world, whose distinct cognitive virtues subordinate other human concerns within the activity of theorizing about nature, now seen as an impersonal machine. Such scientific theorizing detaches claims from any social or religious implications and just asks whether they are true and therefore permissible entries into the unified picture of the disenchanted natural world. Societies built on these lines do aim at a unified referential system. We call it science, and it brings with it a set of purely cognitive techniques for identifying the truth and legitimating knowledge claims. The modern world is built on understanding and manipulating the natural world, which leads to increased technological growth and concomitant economic prosperity and military power. The basis of all this is the rational legitimation of hypotheses. Warrant for scientific theories rests on developing sets of standards of evidential support and justification, and these standards have increasingly worked their way into the fabric of other forms of life. These standards have also, as Weber and others like Gellner have emphasized, ramified into political and social life so that in modern liberal societies every social arrangement is expected to submit to the test of rational legitimation. Alongside this insinuation of rational legitimation into every walk of life there has grown up the philosophical project of understanding what that legitimation consists in and the entanglement of the concept of belief with the epistemic virtues that delusions lack. If these hypotheses are correct, modern epistemology reflects the cognitive practices needed to do science and is actually the record of a historic achievement. It marks a historical shift away from the human norm that subordinates knowledge to social conventions and seeks isolated, rather than unified, perspectives on the world.

Now, Gellner's claims of a sharp break between agrarian and industrial society may be overstated; it may be better to think that scientific styles of thought, like commercial styles of human interaction, always existed in pockets but were spread over the world by the big lift-off in early modern Europe. Perhaps we should think of the pre-scientific styles of thought gradually yielding more ground as the sciences advance and produce richer, more liberal polities. If so, then we might expect pockets of pre-industrial cognition to survive in all quarters—even in Western societies—and quite large expanses of it to have remained in many others.

So, where does that leave Turri's claim that we inherited our species-typical knowledge concept from the great apes? Well, there are two possibilities, provided the basic claim is correct, which I will not contest. Now, the primatological evidence concerns only a few activities, since

compared to us, apes are not terribly versatile. When it comes to finding food and predicting the activities of conspecifics, other apes might indeed have a functional knowledge concept, since feedback is likely to be highly diagnostic, and quite a lot is at stake. But it does not follow that these abilities, even if inherited by humans, would generalize to all the activities that humans go in for, especially not when those abilities are overlaid by the ritual dynamics and social hierarchies of early human societies.

So, first, it may be that primate evidence and the modern evidence concern two different cognitive natures or capacities, one that evolved in the great apes and one that spread around the modern world with the expansion of modern scientific practices. They look the same, but that misses the long expanse separating them when cognitively, things were different. On this view, the great apes evolved a specific set of capacities or modules, and we later developed some additional ones. A second possibility is that of survival and preservation of the original primate cognitive abilities and their later amplification and generalization, rather than their supplementation by additional systems or capacities. Thus the second possibility is that modern industrial/scientific societies are those that have learned to treat everything of human concern as effectively as great apes treat food and social relations.

Either way, we should expect that the historical and contemporary anthropological record would unearth some real disparities in folk epistemology both within and between human groups. We may even find disparities within some individuals, since a person might be well attuned to the nuances of epistemic justification in a professional context but less attentive otherwise.

But my primary concern here is with the cross-cultural issue in the context of delusion. I have suggested that delusions are attributed where the explanatory resources of folk thought run out and we are unable to make sense of why someone believes something that is both unjustified and not otherwise to be expected. If the standards used to assess beliefs differ across cognitive ways of life in different societies, we would expect differences in what counts as delusion and perhaps some societies in which there is no such concept at all, because there is no role for delusion, as opposed to (say) heresy or error.

But I have also said that we should expect to see similarities across societies as well as differences, with folk epistemology reflecting the penetration of the world by modern habits of rational legitimation. So there will be both differences and similarities around the world. How do we judge whether we are dealing with the same case? That is, if we judge someone as deluded in our social sphere, should we defer to local judgements elsewhere if they return different judgements on what look likes the same case, or should we insist that local judgements should defer to what we see as the best psychiatric explanation? I have said that local cognitive practices may differ, but you might think delusions form a

natural kind, perhaps an expression of belief forming mechanisms going wrong. But are belief-forming mechanisms really going wrong if they reflect the norms of another culture, no matter how arbitrary the results appear to us? I will now turn to these issues.

3. Universalism and Particularism About Mental Illness

3.1 DSM-5 on Culture and Psychopathology

Traditionally, non-Western forms of psychopathology bear the label 'Culture-Bound Syndromes'. DSM-IV-TR defined Culture-Bound Syndromes as 'recurrent, locality-specific patterns of aberrant behavior and troubling experience that may or may not be linked to a particular DSM-IV diagnostic category' (p. 898). It incorporated both a Universalist view of DSM diagnoses and a particularist view of Culture-Bound syndromes:

> Although presentations conforming to the major DSM-IV categories can be found throughout the world, the particular symptoms, course, and social response are very often influenced by local cultural factors. In contrast, culture-bound syndromes are generally limited to specific societies or culture areas and are localized, folk, diagnostic categories that frame coherent meanings for certain repetitive, patterned, and troubling sets of experiences and observations.

DSM-5 has heavily qualified the concept of a culture-bound syndrome. It has reformed psychiatry's approach to what it now calls cultural formulation. DSM-5 has moved to a model of 'cultural concepts of distress' (p. 758), which are ways that 'cultural groups experience, understand and communicate suffering, behavioural problems or troublesome thoughts and emotions'. DSM-5 supplements its conceptual reform with a thorough overhaul of the 'Outline for Cultural Formulation' that was introduced in DSM-IV-TR, in part in response to pleas from cross cultural psychiatrists dissatisfied with the old ways (e.g. Canino and Alegria 2008).

Despite the rhetoric, it is unclear how the new appreciation for culture in psychopathology can influence the field. The treatment of these issues remains cursory (less than 20 pages out of 900) and poorly integrated with the diagnostic criteria in the main body of the manual. And if one thinks of one's own culture as just the way things are or ought to be, then one will continue to see cultural influences as interesting only if they are non-Western. This is so even if the conceptual tools available should be less parochial. The assumption in DSM-IV-TR was that Western conditions are not culture-bound; they represent abnormalities in a universal human endowment. DSM-5 did make a major innovation through overhauling the cultural formulation interview, which is designed to be

used with any subject to develop an initial formulation of the case. This recognizes that any psychiatric condition will involve a cultural element and that different subjects will bring their own understanding of their situation to bear.

Cultural concepts of distress are not supposed to be limited to non-Western societies. However, consider that Avoidant/Restrictive Food Intake Disorder is currently noted as occurring in the USA, Canada, Australia, and Europe (DSM-5, p. 336). Although these countries are not identical to each other, one would expect evidence from a wider range of cultures before accepting it as universal. DSM-5 also treats muscle dysmorphia as a regular diagnosis. This is despite prevalence to date for the wider condition of body dysmorphic disorder being noted only for Germany and the USA, and the characteristic behaviors being weight-lifting and steroid use, which largely exist in specific Western contexts. DSM-5 persists with a main text for diagnoses that occur in the West and a special appendix for the rest of the world. It is hard not to see this as the expression of a view that Western minds are the norm. Universal 'normal' mental illness is best understood by modeling the minds of people from NATO countries. In contrast, other parts of the world have deviant culturally specific forms of psychopathology for which universal models should not be sought. (I thank Pieter Adriaens for bringing these examples to my attention.)

Despite some hopeful signs in DSM-5, then, I do not think it has moved away from the traditional picture in psychiatry with its two approaches. Cultural variation is either the distinctive cultural shaping of a universal condition or it is the expression of particular, local forms of non-Western distress with no claims to generality.

The psychiatric state of play teeters uneasily on two ways of thinking about culture. One is represented by universalism, which sees diverse mental illnesses as different expressions of common failures in shared human psychology; the belief that one's spouse has been kidnapped and replaced with a replica (the Capgras delusion) is a delusion whether or not it is regarded as such in all parts of the world. This view regards psychiatric categories as applicable across all societies. The particularist view insists that different cultures need different diagnostic categories, reflecting a priority on the shaping of the mind by its social circumstances. The notion of 'culture-bound syndromes' has traditionally carved out a space for particularist diagnoses within a broadly universalist science. Lewis-Fernandez and Kirmayer (2019) argue that 'boundedness' as a concept exaggerates the uniqueness of these conditions. They note too that in many cases we do not see sets of symptoms but more diffuse presentations that express a culturally transmitted category of distress, often embedded in and putatively explained by traditions of thought about human nature. In the rest of this section I will go over these ideas in more detail and then ask what they might tell us about delusion.

3.2 Universalism

Joel and Ian Gold (2014) have discussed the emergence of what they consider to be a new form of psychopathology—the 'Truman show delusion'—in which, like the hero of the eponymous movie, subjects imagine themselves as the star of a reality TV show. The existence of the show is known to but kept secret by their friends, who are leagued in a conspiracy to maintain the fiction. A universalist perspective would argue for treating these symptoms as a variation of paranoia. It's what you get when a paranoid brain deals with the contemporary social world. Perhaps a few hundred years ago these subjects would have been afraid of witches, not TV producers.

Gold and Gold are attracted to the idea that the Truman Show delusion is a new category of psychopathology. They argue that the delusion is due to the rise of new forms of media and an attendant loss of privacy. This is what I call a particularist perspective. The idea is that different social contexts breed different forms of psychopathology. A world saturated with social media will afford different ways of going mad than a world steeped in traditional supernatural interpretations.

Let's look at the universalism and particularism in turn. It is important to realize to begin with that the universalist view is not committed to denying cultural variation. Rather, the claim is that a disease label refers to a universal condition even though its expression varies. In the case of delusions, most universalists would expect the label to refer to a neuropsychological abnormality that explains the failure of belief-forming strategies to work as they should. Universalism about categories reflects universalism about mechanisms, the operations of which produce the same general phenomena, albeit with local variation.

To see this position articulated, we can look at a response to a famous and influential claim of cultural variation in depression by Arthur Kleinman (1987):

> Depression experienced entirely as low back pain and depression experienced entirely as guilt-ridden existential despair are such substantially different forms of illness behavior with different symptoms, patterns of help-seeking, course and treatment responses that though the disease in each instance may be the same, the illness rather than the disease is the determinant factor

The Chinese experience of depression and the experience of depression in the West are so different, Kleinman argued, that Chinese and American subjects might as well have different diagnoses. The main point I raise here, though, is the universalist response.

Horwitz and Wakefield (2007: 199)

> agree with Kleinman's distinction between disease as a universal underlying dysfunction and illness as the culturally shaped expression

of a given dysfunction . . . [but] if there are indeed underlying common dysfunctions, then treatment presumably depends in large part on the science of identifying and intervening in such dysfunctions irrespective of their cultural presentation.

Horwitz and Wakefield argue that there is a continuous history of the diagnosis of depression since classical antiquity and that it tracks the misfiring of some evolved neurological machinery. That, for them, is what depression is. If Chinese subjects are really suffering from depression then they are victims of that same neuropsychological abnormality. Differences in their experience and understanding of depression reflect the different historical trajectories of Chinese and Western societies. But the underlying problem is the same, because the underlying neuroscience is similar enough to allow us to apply the same model in both cases.

I repeat that the unificationist can say that even if every case has the same neuropathology, we should not expect the same symptoms. Even within a society the particular manifestation of a diagnosis depends on accidents of biography. The disease label refers to what is going wrong within your brain, and the cultural context, like the biographical context, just supplies the input and output. The different symptoms are representations of different cultures computed in the same abnormal way across differently situated brains. So a universalist response to the Truman Show delusion would maintain that the underlying neurocomputational processes are the same in that case as in cases of imagined persecution by witches. The differences lie in the inputs to the system, and the behavior varies accordingly, but the system itself remains the same, and that is where the load-bearing parts of the explanation lie.

Gold and Gold do proffer the idea that there exists an evolved system for monitoring social relationships, and that this is what misfires in cases of paranoid delusion. But although this is consistent with the universalist position, they still count as particularists on my reading, because they stress the different forms that the symptoms take. This is a particularist view not because it rejects shared mechanisms but because it rejects the explanatory or classificatory stress on the mechanism in favor of putting the symptoms in the foreground.

3.3. Particularism

So, one particularist position represents (as in the Golds) a stress on symptoms and other cultural differences as the focus of explanatory or classificatory concern. Another, more radical, particularist position argues that local variation represents not the different output of a shared mechanism but the operation of a distinctive mechanism. A particularist reading of Kleiman's findings about depression, for example, would argue that the psychological mechanisms of Chinese subjects differ enough from

those of Westerners that it is an error to look for shared systems. The diverse symptoms represent a variation in underlying mechanisms. Nisbett (2003: 38), for example, has suggested that ecological differences in antiquity between China and Greece produced divergent economic forces that sustain different social structures, which produced different social and educational practices, which brought about different views of the world; these, ultimately, cause and sustain cognitive differences. If this is correct, then we should expect that differences in East Asian experiences of mental illness reflect differences in cognitive processes. I have mentioned depression as one such case: another may be anorexia, which in East Asian populations often presents not as a feeling that one's body is too fat, but as a feeling of fullness (Lee 2001). What does it mean to talk of difference in cases like this? We can ask two questions—what does it mean for symptoms to be culturally specific, and what does it mean for processes to be different?

The embeddedness of cultural syndromes could warrant explaining them in terms of the specific, culturally transmitted cognitive differences that Nisbett ultimately explains via deep-seated ecological pressures. This suggests an answer to our second question, about differences in underlying processes. Perhaps mental illnesses should be regarded as culturally distinct insofar as they can be given a distinct functional explanation in terms of different cognitive processes without making any commitment to neurophysiological or anatomical differences across cultures; that is a more implausible claim. My proposal is that two conditions (say anorexia in Iowa versus anorexia in Guangdong) should be seen as different if our best functional explanations involve distinct cognitive processes that are sustained and transmitted by distinct cultural forces. Different functional explanations are consistent with neurological similarity, so no commitments to physical transformations of the brain need to be made (or denied).

A functional explanation breaks down some capacity of a system into a set of simpler capacities and shows how the organization of these simpler capacities enables the overall capacity to obtain. But functional explanations are not mechanistic. They explain a phenomenon in terms of abstract representations of the processes that make it happen, while prescinding away from their physical makeup. Roth and Cummins (Forthcoming) note that natural and artificial hearts can be given a common functional analysis despite physical differences and point to circuit diagrams as representing processes that can be understood even if one knows nothing about what the items on the diagram are made of. A functional analysis can identify the cultural and neurological processes that interact to bring about a set of symptoms even if we don't know the physical detail and even if we cannot explain the social forces in physical terms.

So far I have contrasted universalist and particularist explanations along two dimensions: first, the universality or otherwise of the diagnostic

category and second, whether a common functional explanation exists. However, it is of course the case that behaviors can be explained by the functional analyses of social forces acting on the brain even if the behavior is not pathological. Skeptics about universalism are often skeptical not just because they are particularists but because they deny that a putative diagnosis is actually pathological at all. In many developed societies a belief that one is possessed would be seen as delusional, but in other places it is a perfectly orthodox belief and would not be delusional according to the proviso we saw earlier, which rules out delusions in cases of beliefs that are to be expected given the cultural context. These beliefs require no explanatory machinery beyond that ordinary cultural transmission and social learning. They are particular but not pathological on our current understanding

3.4 *Culture, Cognition, and Psychopathology*

Let me try to assess the significance of these issues for the topics we began with, starting by revisiting the idea of belief. It is a commonplace of recent philosophy that belief may not be a natural kind. One of Stich's (1983) reasons for doubting the scientific utility of belief is that cases exist where we are unsure whether the concept of belief really applies at all. An example is that of an elderly woman, Mrs T, suffering from dementia who can state that 'McKinley was assassinated' even though she cannot say who McKinley was, whether he is alive or dead, or what assassination might be. So, does she really believe that McKinley was assassinated? In discussing the doxastic theory of delusions, Gerrans (2014: xiii) notes that although delusions resemble straightforward empirical beliefs in some ways, they also possess features that make it hard to assimilate them to that model, 'being somehow insulated from public standards of justification, openness to dialogue and disconfirmation by obvious counterevidence'. Are these features, missing in delusion, in fact part of our everyday concept of belief? I think it is hard to tell (Bortolotti 2010), but they are certainly part of the philosopher's conception of belief, because that conception is tied to the notion of rational legitimation.

Tamar Gendler has recently (2008) argued that we should accept the existence of aliefs. An alief is an automatic state that has some belieflike features. It exerts some control over behavior and cognition but is typically in tension with belief. You don't really believe that you fall if you look down through the glass observation deck whose floor is supporting your weight. But you might feel uneasy and undergo many of the bodily reactions that you would undergo if you did believe it. The automatic process that kicks off those reactions is what Gendler means by aliefs. They may exist alongside and be in tension with more cognitive top-down beliefs properly so-called. Thus you do not form the belief that you will fall because you make the right inferences given the evidence. But

you do alieve it. But even in this case of belief formation, it is perhaps not clear that your belief that you will not fall is the same sort of thing as your beliefs about the earliest dates of human migration to Australia, based on careful examination of the archeological record and existing literature.

I suspect that the real terrain is more complicated than Gendler's dichotomy. There are probably lots of distinct information processing streams in the brain that have some of the stereotypical aspects of belief, but our concept of belief seems to lump together everything: quick and dirty appraisals, top-down responses to the environment, judicious conclusions based on impeccable scientific standards of empirical evidence. It includes elaborate scientific hypotheses as well as casual prejudices. If the arguments from anthropology I reviewed in section one are right, we can explain this quite straightforwardly. Human cognition involves the entanglement of ancient systems designed to monitor the physical and social environment, plus the residue of multiple and various culturally entrenched epistemic 'periscopes', which are in turn overlain with the self-conscious commitments to truth and justification that characterize the cognitive economy of the scientific-industrial world. All these different strands feature processes that involve enough similarity to be called beliefs but actually work differently and are evaluated differently.

Some of these systems are likely to be universal parts of our animal heritage. Others are likely to be limited to particular cultural traditions. The distinctively scientific picture of the world is associated with a set of cognitive procedures that are imperfectly distributed around the world, by level of development an education within and between societies. All of them can likely go wrong in ways that strike observers as deviant, including pathologically deviant. But if we follow the definition of delusion that's in the books, only the distinctively modern form of cognition can go astray in ways fructiferous of delusion. Delusions are universal in the sense that they can occur anywhere, but they are not universal in the sense of arising from a shared, evolved folk psychology. They are a by-product of standards for legitimating belief that are inescapably modern.

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9   Challenges for an Anthropology of Knowledge

Søren Harnow Klausen

1. Unfulfilled Ambitions

Knowledge has long been considered an important subject for social and anthropological studies. It is debatable whether knowledge as such has come to play a more important societal role in recent times, as it has arguably always been of enormous importance. But at least there has been a rapidly growing recognition of the central role of knowledge production and dissemination in all kinds of human affairs. Philosophers have contemplated the basic elements of individual knowledge acquisition since antiquity but recently also begun to study knowledge as a social phenomenon. So-called social epistemology aims, in the words of one of its leading proponents, "to study all forms of social interaction that have significant knowledge-producing or knowledge-disseminating properties" (Goldman 2002, 197).

Anthropologists have also come to advocate a specific "anthropology of knowledge" (see Crick 1982; Boyer 2005). Frederick Barth argued that a shift in focus from culture in a broad sense to knowledge would provide anthropology with a more precise object of study and reveal more subtle patterns of human interaction. He declared that "we can greatly advance our anthropological agenda by developing a comparative ethnographic analysis on how bodies of knowledge are produced in persons and populations in the context of the social relations that they sustain" (Barth 2002: 1). Social scientists have likewise turned to studying the knowledge society, knowledge economies, knowledge management and the like (Mokyr 2002; Powell and Snell 2004; Adolf and Stehr 2014).

Yet in spite of all the programmatic declarations and apparent interest, actual studies of human knowledge practices as such remain surprisingly scarce. This may sound incredible to many, in light of the apparently strong trends just mentioned. But I think, first, that the number of actual in-depth studies, significant though it may be, is still relatively modest, compared to the allegedly enormous importance of the subject. Second, and this is my main point, only little of what has been presented as studies of knowledge practices can really count as such.

Take, first, the field of social epistemology. Philosophers have focused predominantly on the analysis of *generic* social practices of knowledge formation, like testimony, responding to peer disagreement, relying on expertise, lying or bullshitting. While they have occasionally drawn on empirical results, they have been very little concerned with real-world practices and almost totally ignorant of local differences between groups and individuals.[1]

Anthropologists and social scientists have been more productive when it comes to turning out detailed descriptions of specific practices. But they have seldom and only to a very limited extent discussed them *qua* epistemic (i.e. knowledge) practices. A case in point is the much-cited anthology *Complexities* (Law and Mol 2002). The subtitle of the book is *Social Studies of Knowledge Practices*, but the term "knowledge" is used only sparingly in the actual chapters, and there is very scarce, if any, mention of justification,[2] evidence, reliability or other assumedly paradigmatic epistemic notions. The book contains much stimulating discussion of aircraft design processes, ultrasound scan and conservation strategies in Kenyan national parks, all of which surely do deserve to be called knowledge practices; they are just not analysed as such. There are indeed other books that stray less away from the topic, like the anthology *Ways of Knowing* (Harris 2007), which seems to be much more explicitly concerned with knowledge. But even such books are marked by a tendency to focus on either *what* is known or the wider circumstances of knowledge production and dissemination.[3]

2. Explaining the Lack of Studies

There are a number of likely reasons for the scarcity of genuinely epistemological studies of specific cultural practices. Some are sociological, having to do with the actual—contingent—conditions for research in the field. Others appear to go deeper, as they are related to the very idea of a study of knowledge practices and maybe to the notion of knowledge as such.

1) The social sciences are, to a large extent, wedded to constructivist epistemologies that de-emphasize what is considered genuinely and specifically epistemic by mainstream analytic philosophy (i.e. notions like truth, justification, evidence, reliability and the like). They tend instead to emphasize social and cultural factors in a broader sense. Hence epistemology gets absorbed by, almost disappears into, studies of human behaviour and societal arrangements in general. Knowledge practices are studied as *practices*, on par with other social customs. This lack of concern for distinctive epistemic features is not a sign of ignorance or error but simply reflects the general view that there is nothing special about knowledge as such.

2) Philosophers, even those who are professed naturalists, are prone to keep a distance from actual fieldwork. They are interested in empirical evidence of cultural practices only insofar as it can serve as input to their analyses of very general notions. In short, they are, almost by nature, more concerned with developing and testing theories than with applying them to concrete cases.

3) The potential of studying knowledge practices has not been recognized outside philosophy, and so there have been relatively few incentives for philosophers to take up such studies. This is different from the situation in fields like bioethics or human rights, where public interest and a general recognition of the need for clarification and normative guidance have led to institutional support and directed research activities towards specific issues, thus creating substantial subfields for philosophical study.

   But while these factors do in part account for the scarcity of genuinely epistemological studies of local knowledge practices, they do not fully explain it. I think there are two more fundamental obstacles, which are not merely sociological but stem from problems more intrinsic to knowledge and epistemology:

4) Attempts to apply epistemology to specific social arrangements are often hampered by the fact that epistemological and other normative questions appear almost inextricably intermingled (Klausen (2009b)). Real-world epistemic tasks are very seldom questions of simply finding the most efficient procedure for obtaining truths but almost always a question of balancing the concern for truth and reliability with other concerns, both for "semi-epistemic" desiderata (e.g. qualities like power, speed, fecundity, elegance, accessibility, understanding, social robustness etc.) and for non-epistemic—e.g. moral, political and pragmatic—values.

5) The main challenge for the anthropology of knowledge is, however, a still different one. It is the problem of *finding an appropriate level of description*. There is a serious worry that we can either study actual human practices from a genuinely epistemological standpoint with the use of basic epistemological concepts but then inevitably end up with descriptions of highly generic practices that are already well-known and pose only familiar, general problems—or we can narrow our focus so as to capture features of local practices that are truly interesting or original but only at the price of abandoning the epistemological perspective, substituting it with a description in domain-specific terms.

The challenge can be illustrated by considering that although a great many problems that confront us in everyday life or are subject of public debate are at least in part about how to best attain truth (or some other epistemic desideratum), their solution does not seem to require any

specific epistemological expertise. We would like to know the whereabouts of criminals and terrorists. What to do about it? Call the police or perhaps some secret intelligence unit—but not an epistemologist! Maybe we can see, either from an unimpressive track record or from more or less obvious flaws and failures, that the very procedures and organizations we rely on are not really up to the task, and so need improvement. Who to call? We might turn to some independent intelligence analyst; we might invoke experts on organizational workflow or communication; perhaps we might even take a cultural scientist or anthropologist on the team, in the hope that she can contribute relevant knowledge of the thinking and actions of criminals or terrorist. Still, we wouldn't dream of calling an epistemologist.

The same goes for problems like how to secure that patients get the right doses of the right medicine; how to identify each and every active graduate student in the philosophy department; perhaps even for problems that initially seem closer to home to epistemologists, like that of organizing scientific funding most efficiently or improving peer review and other mechanisms of scientific quality control.

We *can* of course describe the more or less successful practices in general epistemic terms, e.g. as cases where beliefs are formed on insufficient evidence or by unreliable mechanisms, where knowledge is not propagated efficiently etc. Yet as long as we remain on the level of explicitly epistemological description, our analysis will very likely be trivial and uninformative. The local epistemic practice will only exemplify a very general epistemic phenomenon, and the description of the practice will not contribute to the analysis of this phenomenon. There seems to be no reason for the epistemologist to get out of the armchair, as it will neither benefit her own project of understanding knowledge in general nor contribute to the anthropologist's or practitioner's attempt to understanding the peculiarities of the practice in question.

This is, I think, the most fundamental obstacle to the otherwise highly attractive project of using epistemology to describe and assess specific human practices. I do not consider it decisive, however, and I will develop some suggestions as to how it might be surmounted after all. But before that, some additional clarification and stage-setting is needed.

3. Epistemic Practices and Cultural Diversity

The kind of anthropological study I envisage—and consider challenges to—does not concern the basic *understanding* of knowledge or epistemic practices as such. It is directed at the *practices* themselves, which I suggest should be described and assessed according to mainstream (i.e. "Western") epistemology. If it turns out that some cultures do employ significantly different notions of e.g. knowledge, truth or justification, then I suggest that we see this not as an example of different epistemic

practices but of different *semantics*. That is, I wish to stipulate that in order for something to count as an epistemic practice at all, it has to exhibit certain general features emphasized by standard (Western) epistemological analyses. Put very simply, it has to be a *truth-concerned* practice, i.e. a practice that is at least partly directed at attaining truth or avoiding falsehood (or at attaining sufficiently similar desiderata, like idealized acceptability, warranted assertibility or the like).

There should be nothing problematically ethnocentric about this. It is simply a matter of adopting one particular set of concepts to be applied in descriptions of cultural practices. We could, in principle, just as well opt for some alternative set of concepts. (I do, however, think that standard analytic epistemology, for all its possible inadequacies, has been on to something—that mainstream conceptions of knowledge do represent real and important features of human practices. Hence the choice of conceptual scheme is not arbitrary.)

While this conception does shift the focus from linguistic to extra-linguistic practices (or features hereof)—and I thus tend to follow the advice of Hazzlet (2010) and Stich and Mizumoto (2018) and "give up on the linguistic method"—it does not rule out linguistic behaviour as a significant instance or subcomponent of an epistemic practice, and thus is a legitimate object of study for the anthropology of knowledge. But such behaviour should be sufficiently specific and presuppose—or at least be describable according to—standard notions of epistemic goals and tasks in general. A knowledge ascription practice *can* be an epistemic practice but only if its particular features have to do not with the fundamental conditions for knowledge and only with more specific criteria for possessing knowledge (if, for example, members of a certain culture are more prone to ascribe knowledge in a certain field to older persons—but *not* if they are prone to attach a word initially assumed to be equivalent to "knowledge" to beliefs that are completely unwarranted, without caring for their possible truth). I do not here wish to buy into any strict distinction between meaning-constitutive and non-meaning-constitutive features of a linguistic practice. I merely assume that it should be possible to identify a set of features, including forms of linguistic behaviour, that make possible the recognition of an epistemic practice as such and keep them fixed while looking for variation within this broad and indiscriminate framework.

For an epistemic practice to count as such, it must, moreover, possess a certain degree of *comprehensiveness, generality* and *stability*. Even though we would like to go local and move away from generic epistemology, we must still look for behavioural patterns that occur regularly and have a range of different manifestations. Lexical definitions of "practice" invariably emphasize that it has to do with something being done *customarily* and *repeatedly*, sometimes also that it is a set of procedures regarded as standard. My looking up various definitions of this word is,

by contrast, too unique and limited to count as a practice. Paradigmatic examples of practices could be the procedures for selecting shamans in an ethnic group or hiring based on written recommendations from former employers. The activities in question need not be explicitly recognized *as* an epistemic practice,\ or as a practice at all (again, it does not matter how the members of a culture conceive of or describe their doings, only what they in fact do).

I will make two further, probably somewhat more controversial assumptions. First, I think there is no reason to assume any large cultural diversity with regard to the basic understanding of epistemic practices as such. This might be a further explanation of the scarcity of genuine studies of local epistemic practices: Epistemologists and anthropologists assume, rightly, that whatever special features may be revealed by studying a cultural practice, they will *not* concern the most general or fundamental aspects of knowledge.

I further assume, maybe more contentiously, that there is little cultural variance as to the *conduct* of basic epistemic practices and the use of basic epistemic sources. Members of all cultures do, as a matter of fact, form beliefs on the basis of sense perception, reasoning, memory and testimony. All cultures acknowledge and exploit some kind of division of epistemic labour, e.g. by recognizing certain individuals or groups as experts on certain matters and that some individuals are in better epistemic positions than others with regard to specific issues (Brown 1991; Johnson-Laird 2008: 275ff.). Hence the amount of deviation from familiar Western practices (or from the most fundamental tenets of "mainstream" epistemology) to be expected is not very large (though it might still be significant; eventually, I will argue that it probably is but only in certain respects).

According to view suggested here, an *alternative* epistemic practice is a practice that is based on or manifests a concern for obtaining true belief (or something like that) but that differs from standard Western assumptions as to the actual means employed.

Some cultures may differ in recognizing *further* basic sources apart from perception, inference, memory etc. (though I consider it an open question whether these are really treated as on par with the standard, universally recognized sources. I discuss some examples later). Moreover, many contemporary societies recognize *science* as a special social, even epistemically privileged, practice. But science is not considered a basic *source*; it is usually seen as an extension and orchestrated use of the familiar range of cognitive functions and processes.

To sum up: What we are looking for—an epistemic practice in the relevant sense—must be i) sufficiently comprehensive and stable to count *as* a practice, ii) sufficiently truth-conducive (or the like) or considered (if only tacitly) to be sufficiently truth-conducive by its participants, iii) sufficiently special—with regard to its epistemic features—to count as a

local (and distinctive) *epistemic* practice and iv) illuminatingly describable in distinctively epistemological terms. There is reason to worry that examples of such practices are hard to come up with and so there is little room for a cross-cultural or otherwise culturally sensitive and applied social epistemology. This worry is not immediately allayed when we turn to some of the few apparently positive cases from contemporary anthropology.

4. Epistemology in the Wild

In his 1983 collection of essays *Local Knowledge*, Clifford Geertz considers a large variety of practices, in many cases without much concern for their distinctively epistemic features. In some places, however, he does describe what seem to be peculiar epistemic practices. Especially his description of traditional Islamic jurisprudence stands out. Geertz notes how only spoken testimony based on first-hand experience—having seen something "with one's own eyes"—counts as sufficiently reliable in a traditional Muslim court. Moreover, in classical times, the emphasis on such testimony and the concern for the general trustworthiness of witnesses, as opposed to the specific circumstances, gave rise to an institution of accredited, professional witnesses, considered to be especially "upright" and thus sufficiently credible. Since the selection of such witnesses was a serious and elaborate procedure, there further arose the institution of *meta-witnesses* (*săhāda alā săhāda*, "witnesses as to witnesses") (1983: 190ff.), who assessed the moral character of ordinary witnesses.

Geertz recounts the practice with a markedly exoticist undertone, assuming that it must seem strange and even irrational when seen from a contemporary Western perspective. For example, he says of the use of a body of secondary witnesses that it is "even odder" than the use of certified witnesses itself (1983: 192). He also connects the practice with what he takes to be equally strange metaphysical assumptions about the nature of reality and law typical of Islamic culture (1983: 187f.). However, when seen from the perspective of contemporary Western epistemology, what appears striking about Geertz' description of Islamic jurisprudence is rather the close *similarity* to standard models of good epistemic practice. Overall, it is based on a deep concern for *reliability*. And reliability is sought (and thought to be ensured) by identifying *experts* in the field whose testimony is particularly trustworthy. The Arab word for expertise (*arīf*) is etymologically related to "reliability" and "trustworthiness" (1983: 194), and so the understanding of what constitutes an expert concurs almost perfectly with mainstream Western epistemology. Moreover expertise is not simply taken for granted or associated with a simple, superficial criterion. It is subjected to a process of meta-assessment, motivated by the assumption that apparently trustworthy individuals can nevertheless be less dependable than they seem and that reliably assessing

their competence does itself require a certain expertise. It is hard to find anything alternative or exotic in this.

It may, however, be thought that the connection between alleged expertise and moral perfection highlighted by Geertz is more unusual. And maybe this *is* a distinctive fact about the epistemic practice in question—a peculiar, "local" criterion of epistemic competence. Yet it does not seem outlandish to assume that trustworthiness is related to the integrity and general moral standing of a person. The Islamic practice does apparently give priority to truthfulness over the ability to acquire true beliefs in the first place (and maybe even to attach more importance to deciding whether a person is likely to have committed a crime than to find out what actually happened). But even according to Western notions, truthfulness is at least *one* important epistemic factor.

Another feature of the practice that may initially seem strange is the almost exclusive reliance on oral testimony. However, the tendency to give priority to first-hand evidence has been very pervasive in Western (and other) cultures as well, and it is still part of contemporary legal practices (see Jackson and Summers 2012: 34ff.).

The Norwegian anthropologist Frederik Barth explicitly advocated a turn to the anthropology of knowledge, justifying it in part by an intention to disaggregate Geertz' diffuse, all-encompassing category of "culture" and facilitate studies more precisely focused on the "materials for reflection and premises for action", rather than the reflections and actions themselves (Barth 2002: 1). His most sustained attempt to carry out this program was his studies of the Baktaman of New Guinea (Barth 1975). Yet again, his actual studies seem to have been relatively little concerned with knowledge as such. Barth provides detailed descriptions of initiation rites and the way they structure social relations. He also expounds peculiar features of the Baktaman's general worldview and considers how it might inform the experience of individual tribe members. The latter is "epistemology" in a very broad sense of the word—i.e. the study of belief systems and belief formation processes. It is not, however, focused on the acquisition or propagation of *true* beliefs and not even on particular factors that are assumed by the Baktaman to be indicative of truth or reliability. Looking back on his study in a later, programmatic article, Barth, however, did call attention to what appears to be a highly distinctive knowledge practice of the Baktaman: "All valid knowledge", he writes, "[is] knowledge that [has] been passed on by the ancestors" (Barth 2002: 4).

If this were correct, it would indeed be a highly interesting finding—it would be a clear example of a very far from trivial description of a local, "alternative" knowledge practice. It would contradict my assumption that the implicit understanding and actual use of basic knowledge sources do not differ significantly across cultures. Yet the claim turns out to be not really supported by Barth's own ethnographic evidence. His wider description of the Baktaman's activities indicates, unsurprisingly,

that they form beliefs on the basis of sense perception and take these to be mostly true, that they rely on memory and testimony and so on. Barth himself speaks casually about "known aspects of the world" becoming connected, in ritual practices, to form a complex and elusive understanding of the phenomenon of growth (Barth 2002, 4f.). This supports my assumption that the apparently exotic practices of the Baktaman rely on input from primary sources and processes no different from those described by mainstream epistemology. The Baktaman come to know a variety of "aspects of the world" in more or less the standard ways, and only then do they go on to construct a metaphysical worldview in a special, esoteric process.

Moreover, Barth's description of the role of knowledge allegedly passed on by ancestors indicates that this need also not be seen as the use of an independent, putatively fundamental, source of knowledge but rather as an—admittedly peculiar—instance of relying on testimony and/or expertise. As was also seen from Geertz' description of Islamic jurisprudence, it is one thing to have a peculiar, "alternative" view as to who might be an expert on a particular matter and quite another to have an alternative view of expertise as such. Examples of the latter remain rare, even if one scrutinizes the anthropological literature; examples of the former are legion, even within contemporary Western culture.

The cases of Geertz and Barth both illustrate a general tendency in the way anthropologists deal with knowledge. There is a tension between what they preach and what they practice. They wish to describe actual practices, rather than abstract systems of thought, which they rightly suspect to not always conform to the anthropological facts. Hence religious anthropology is, for example, not a study of religious thought. Hastrup and Hervik (1994: 3) note that that individuals are unable to express many aspects of their culture verbally and argue, quite plausibly, that these aspects must instead be gleaned from individuals' actions; they must be "experienced as performed" in order to be understood.

Yet anthropologists are still mostly concerned with revealing the presumably special (i.e. complex, alternative, elusive etc.) notions, values and beliefs of the people they study. Both Geertz and Barth focus on the *metaphysical* beliefs of the people they study, even when these seem relatively detached from their actual practices and first-order beliefs. Moreover, anthropologists want to produce thick or "emic" descriptions. So they end up giving relatively strong emphasis to the way people describe themselves and articulate their own worldview. Anthropologists are also prone to focus on relatively special epistemic practices or practices related to particularly important or extraordinary matters. Barth concedes—again just in passing—that he is really concerned with "the most abstract and systematically developed tradition of knowledge" among the Baktaman. Similarly, the studies in *Women's Ways of Knowing* (Belenky et al. 1986) focus mostly on how women acquire knowledge

about their general situation and place in life. This is a very interesting topic. But such objects of knowledge are not exactly typical, and the fact that women may use special procedures for obtaining knowledge about them does not show that women more generally use alternative knowledge practices. The search for philosophical knowledge or for knowledge of elementary particles may likewise appear as very special practices, but their special features also reflect the peculiar nature of their subject matter rather than the use of alternative epistemic practices or policies.

Indeed, some social scientists more or less openly confess that there may be nothing significant to be found by studying everyday knowledge practices.[4] In his wide-ranging study *Knowledges* (1997), Peter Worsley pauses to speculate whether "the kinds of scientific knowledge which is usually labelled 'ethno-science' [is] simply part of a unitary and universal science which all cultures have developed to different degrees? . . . [I]s Western science . . . only a subculture coexisting with other subcultures?" (Worsley 1997: 13). Substituting "practice" for "culture", this is more or less the same worry I have been pressing on the behalf of social and cross-cultural epistemology.

5. In Search of the Appropriate Level

Before considering further cases from anthropology—and revisiting those described by Geertz and Barth—let me pause to reflect on the general challenge and how it might be met. We have been looking more or less in vain for an epistemic practice that is both local and illuminatingly describable in epistemological terms—that is, a practice that is special enough with regard to its distinctively epistemological properties, as opposed to the specific claims it generates, the metaphysical assumptions on which it is based etc. And there seems to be little chance of encountering significantly alternative ways of using or understanding basic epistemic sources.

We have not, however, been searching completely in vain. We have seen that *first-order* (and, as in the case described by Geertz, some second-order) epistemic practices do not differ significantly. But we have also found some hints towards what might, anyhow, be considered a likely hypothesis: We should stop looking for such very basic practices and turn to the distinctively *higher-order* practices of selecting, weighing and balancing sources and inputs. For such higher-order epistemic practices *can* be assumed to exhibit sufficient diversity—*and* to be illuminatingly describable in epistemological terms. I am thinking about something like the following: First-hand evidence may be weighted differently against expert testimony and established abstract or "theoretical" beliefs. Trustworthiness may, though generally conceived in a broadly reliabilist manner, be flagged and identified in very different ways. It may for example be seen as closely connected to moral character or even strength

of religious belief (as in the case of Islamic Jurisprudence) or as having more to do with the educational background or documented track record of the testifier. And some cultures or groups may favour certain representational formats over other, e.g. emphasize learning-by-doing and the acquisition of tacit knowledge or knowing-how over verbalized and instruction-based knowledge. Pictorial representation may be more central to some knowledge practices than others. (Indeed, recent studies of science have revealed the use of pictorial representation and imagery to be more central to standard practices of scientific belief formation than had otherwise been assumed.) Some cultures may follow more risk-friendly or risk-averse epistemic policies, working with different evidential thresholds or putting more or less emphasis on testing, control and certification.

Turning again to the empirical descriptions available, not just from anthropologists but from historians and cognitive psychologists as well, we do seem to find ample support for this hypothesis. For example, even though the tendency to give a certain priority, at least considerable weight, to direct, first-hand experience seems to be almost universal, in some cultures and periods this tendency seems to have been particularly pronounced.

Luria studied the ways of thinking of illiterate Russian peasants during the first half of the 20th century. He asked them questions such as "In the far north, where there is snow, all bears are white. Novaya Zemlya is in the far north. What colour are the bears there?" The peasants reportedly said things like "If you want an answer to that question, you should ask people who have been there and seen them" or "We don't talk about what we haven't seen. What I know, I say, and nothing beyond that" (Luria 1979: 77–80).

This should not necessarily be taken as evidence that the peasants did not generally rely on deduction. It is likely that closer studies would have revealed them to actually carry out and act on deductive inferences in more everyday contexts. The answers reported by Luria do, however, show a very strong tendency to give weight to first-hand experience (and maybe also a view of knowledge sources as having a much more restricted applicability than is typically assumed in contemporary Western cultures). A similar tendency is known from European renaissance culture. Reports about new discoveries were only considered trustworthy if they derived directly from first-hand accounts (e.g. Dowling 2006; but see Gomez-Galisteo 2012: 23 for evidence that the strong weight given to tradition was still in force at this time), as well as well as from the Chinese Mohists (Harbsmeier 1993: 20) (although it is difficult to say whether view of knowledge expressed in a philosophical tradition reflects an actual epistemic practice or rather a set of revisionary prescriptions).

The hypothesis that higher-order epistemic practices differ sufficiently to lend themselves to illuminating descriptions is further confirmed by

looking at what is by far the most comprehensive extant body of descriptions of epistemic practices: The study of science. The rise of Science and Technology Studies has shifted the focus away from the distinctively epistemic features (conforming to the general pattern: the closer you get to dealing with actual practice, the less concerned you are likely to be with epistemology). Yet science is such a saliently and paradigmatically epistemic practice that one almost cannot avoid studying it as such, regardless of one's theoretical preconceptions. A fine example of studies that are both sensitive to the historical details and illuminating as to the epistemic features are the papers collected in Daston and Lunbeck's (2011) *Histories of Scientific Observation*. While observation as such is arguably a universal source of knowledge, these studies show how practices have differed with regard to e.g. the exact balance between theory and observation or whether scientist have preferred synthesizing observations to a regularity or reasoning on a particular fact singled out in advance (Maas 2011). Likewise, studies of peer review (Andersen 2017) and other kinds of academic assessment (Paradeise and Thoenig 2015) bring out epistemically significant aspects of the practices in question. In all these cases, what is studied are higher-order epistemic practices aimed at identifying especially reliable and powerful sources of knowledge as well as possible sources of error or misunderstanding.

6. Conclusion and Perspectives: Towards a Genuine Anthropology of Knowledge?

It should be possible to apply the methods used in studies of science to extra-scientific epistemic practices. Maybe distinctively higher-order practices are less common outside science—after all, science is often considered special precisely because of its unusually strong emphasis on selection and validation of methods, checking of and reflection of the significance of results, tight gatekeeping practices. Yet knowledge practices are so ubiquitous and of such general importance that we can be sure to find many interesting higher-order practices outside science, even "in the wild". We have already encountered examples in the extant anthropological literature of practices for the selection of experts or identification of criteria of special trustworthiness, favourable epistemic circumstances and the like. It seems highly likely that a more systematic search for distinctive higher-order practices will reveal many more of these, as well as characteristic differences between them.

Some residual worries remain, however. There may still be something to the concern that knowledge (and related epistemic concepts) is too general and fundamental to delineate an object distinctive and concrete enough to merit close empirical study. It might be feared that even if one targets higher-order practices, actual studies will still be more about non-epistemic than epistemic matters. Hence the tendency described at the

outset to drift off either towards the general and culturally unspecific or the very local and not distinctively epistemic may be simply endemic and the turn to higher-order practices no real improvement.

But why, it could be replied, is the tendency to go from the epistemic to the non-epistemic something to be feared? It may seem unattractive to philosophers, at least of a certain ilk, who prefer being able to focus on distinctively philosophical problems (as noted in Section 2, such an inclination is typical even of many naturalist philosophers, who prefer doing conceptual groundwork or large-scale planning rather than really getting out of the armchair themselves). But all epistemologists should be interested in the reality that underlies epistemic concepts and practices, be it physical, mental, social or anthropological. It is only to be expected than when one peers closely into an epistemic practice, one will eventually get to a level best describable in non-epistemic terms. As long as the practice has been roughly delineated by distinctively epistemic concepts, this is just as it should be, and there is no good reason why the facts described in non-epistemic terminology should not still be considered epistemically significant or illuminating.

A further reason why even an anthropology of higher-order epistemic practices might fail to appeal to philosophers is that many of these practices are likely to be defective or at least sub-optimal. There is still a widespread tendency, again even among naturalistically inclined philosophers, to understand epistemology as a highly idealized affair, which is not so much concerned with actual cognitive processes or even actual goals and norms as with allegedly intrinsically epistemic or "logical" factors and relationships (a tendency that has, for example, been manifest in discussions about epistemic normativity (Klausen 2009a). It may be easier for philosophers to accept the study of scientific practice as relevant because science, though very far from being ideal, does stand out as a seemingly extraordinarily successful set of epistemic activities and so seems to at least approach their ideal conception of an epistemic practices (though characteristically, they tend to become more reserved when presented with studies of actual scientific practice rather than idealized reconstructions). Higher-order processes in the wild appear, on the contrary, to be too far off the mark or else—like most first-order processes—to be merely instances of the same familiar types.

But again, this is merely a prejudice. Why should we not consider a practice clearly aimed at producing true beliefs (or the like) epistemic, even if we doubt it to be successful? "Engaging in epistemic activities" is surely not a success-verb, and in cases closer to home, i.e. from standard epistemology, philosophers routinely engage in negative epistemic evaluations of Gettier victims, high stakes subjects etc.

In any case, the turn to higher-order practices does have the undeniable advantage that such practices can be expected—indeed, has already been shown—to exhibit real and significant cultural diversity. And there have

been so few attempts at serious epistemological fieldwork that almost all conjectures remain speculative. It is not even clear how much epistemology itself might contribute. Work in recent decades has led to many refinements and development of fine-grained concepts and categories that may not—but could perhaps be—successfully applied to the description of real-world practices (Dalsgaard and Klausen 2015; Klausen 2015). Maybe the expectations are exaggerated, but so could be the worries that the results will still be epistemologically uninteresting. It seems worth the try to get out of the armchair and into the wild, wearing the epistemologist's glasses but prepared to delve into the complexities of actual human affairs.[5]

Notes

1. Alvin Goldman actually proposed a division between epistemology applied to generic and domain-specific practices (1999, 2002: 198) and has carried out comparative analyses of e.g. systems of law and educational practices. But very few have followed his lead, and Goldman's own analyses, while empirically well-informed, are still focused on the general features of very widespread practices.
2. The term "justification" is used with sufficient frequency to be listed in the index but not in any clear epistemological sense; cf. Law and Mol 2002: 9f.
3. The anthropological literature is, moreover, almost more concerned with the *anthropological* knowledge as such, i.e. that status and limitations of ethnographic descriptions of a certain practice, rather than the epistemic properties of the practice as such.
4. In private conversation, the anthropologist Satoshi Nagakawa, who has studied knowledge practices on Flores Island (Indonesia), justified his exclusive focus on special, "secret" knowledge by arguing that there is very likely no significant variation to be found in more everyday knowledge practices. Though this apparently matches my own assumption, I think he may be almost too categorical in his discarding of the possibility that something could be gained by studying less exclusive practices.
5. Thanks to Thomas Grundmann, Edouard Machery, Stephen Stich, Satoshi Nagakawa, Masaharu Mizumota, Clifford Goddard and other participants in the Kanazawa Ethno-Epistemology Conference June 2016.

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10 How to Buy Knowledge in Ende—An Ethnoepistemology from Eastern Indonesia

Satoshi Nakagawa

1. Introduction

This is the only chapter by an anthropologist in this collection. As the only anthropologist, I would like the reader to notice two things about this chapter: first, a unique way of data acquisition, that is, "fieldwork" and, second, anthropological ways of explanation of phenomena, based on the idea of "total social facts" (Mauss 1990 [1950]).

Philosophers have begun to be more experimental, using questionnaires and doing interviews. An anthropologist's fieldwork is different from structured interviews and questionnaires, though. I first arrived in my field site, Ende, on the island of Flores, eastern Indonesia, in 1979. I lived in a mountain village, learned their language and their way of life. I stayed there for almost two years. From that time on, I have visited Flores on and off until now. I attended numerous marriage ceremonies and contributed to the gift exchange; I went to their gardens to help them harvest; I discussed family matters with my "family"—this is the way I carried out my fieldwork. And in the following I will show data (concerning knowledge) I acquired through my fieldwork.

1.1 The Question and the Strategy

This chapter deals with how one acquires knowledge in Ende, an ethno-epistemology from an eastern Indonesian island. In Ende, the proper way

of acquiring knowledge is, simply put, to buy it. The real and hard question to crack is: why should one buy knowledge in Ende? To answer the question, I will begin with the pragmatics of the Endenese equivalent of the English word "to know" and show an implicit classification of knowledge underlying the pragmatics. I then choose one category of knowledge and proceed to analyze that, using data such as beliefs about witches and healers, kinship system and ideology surrounding the gift ex-change, that is, "total social facts," to show why one should buy knowledge in Ende.

1.2 Ende in Flores

The Ende people live in the central part of the island of Flores in eastern Indonesia. There are several languages spoken on the island, and the Ende language (an Austronesian language) is one of them. There is no census available based on the languages; I estimate the population of the speakers is around 100,000.

1.3 Gift in Ende

One thing to be noted about the Ende society, before proceeding to the ethnography of knowledge, is that Ende is a gift-oriented society. Industrialized societies are market-oriented, where gifting is marginalized, while Ende is gift-oriented where market exchange is marginalized. In industrialized societies, it is one's position in the market (one's status in a company, for example) that counts socially. In Ende, it is gift exchange that is approved socially, while market oriented exchange is regarded as more or less peripheral and marginalized.[1]

2. Pragmatics of Knowledge in Ende

In the "Manifesto" (Stich and Mizumoto In press) in the previous volume, Stich and Mizumoto surveyed the theories about the universality of the English notion of "to know." The relevant word in Ende is *mbe'o*. The authors consider the theories (Universality thesis, Translatability thesis and whatnot), it seems to me, at the level of the semantics of the word "know." It is, I contend, pragmatics of the word (*mbe'o*, in this case) that should be taken into consideration when we deal with the Universality of the notion.

2.1 Two Types of Knowledge

At the level of semantics, you can safely assume the Translatability thesis of the word ("know") in the sense, at least, that any Endenese would translate the word *mbe'o* as "know" or "tahu" (in Indonesian).[2]

In terms of pragmatics (how a word is used), the Ende word *mbe'o* differs markedly from the English equivalent, "know." First, an Ende

person would not use *mbe'o* for everyday kind of knowledge. For that, a simple statement suffices;[3] she would say, for example, "a cat is on the mat" or "it rained last night" and not "*I know* (*ja'o mbe'o*) a cat is on the mat" or "*I know* that it rained last night," except in special contexts.[4]

Second, when an Endenese uses the word *mbe'o*, she implies knowledge (*orho mbe'o*)[5] of some special sorts. The implied knowledge is either social/public or personal/esoteric. The former kind can be said to be a "legitimate" kind of knowledge; while the latter is an "illegitimate" or "marginalized" kind of knowledge. When an Endenese says "*kai mbe'o*" ("he knows"),[6] she implies that the person knows much, either about such socially approved things as clan histories, myths, rituals and so forth or "illegitimate" things such as witchcraft and other esoteric matters. A designation, *ata mbe'o* ("the person who knows") means that the so designated person is one to be feared; in some cases, such designation may even form an implicit accusation of his being a witch (*ata porho*). Interestingly, the same expression (*ata mbe'o*) can be employed to refer to a person (*ata marhi* or "magical healer") who is believed to have special power to counterattack the witch. What is common to the two categories of persons (a witch and a healer) is some kind of supernatural power (*orho negi*, "strength")[7] believed to be held by them.

Thus, there are two kinds of knowledge in Ende: socially approved knowledge (a "legitimate" kind of knowledge) and socially not approved knowledge (a "illegitimate" kind of knowledge). For the brevity's sake, I am going to argue only the illegitimate type of knowledge in this chapter.[8]

2.2 *Witches and Healers*

In Ende, the idea of legitimacy (socially approved values) revolves around the kinship ideology and the gift exchange system that accompanies it, while that of illegitimacy (not-socially-approved values) revolves around the idea of witchcraft. I will deal with kinship and exchange ideologies in a separate section later. Here I give brief explications about witches and healers.

A witch (*ata porho*) is, one could say, a prototype of the evil, the anti-social being in Ende. A witch is imagined to have a humanly appearance but to have, instead of an ordinary soul (*mae*), a substance called *wera*, which leaves the witch's body and visits and does harm to somebody else. A witch in this way "attacks" (*tau*) someone, because of, people say, jealousy (*rhene*), greed and such personal and anti-social feelings. The victim then suffers misfortunes, diseases and, sometimes, death. Thus, if one gets sick, the first thing one suspects is that someone (an *ata porho*) is "attacking" one. When one suspects that one's illness is caused by a witch, one seeks help from an *ata marhi* (healer). One might presume that an *ata marhi* embodies socially approved values; it is not so, however. An *ata marhi* is, actually, an ambiguous figure. It is true, people say,

that he[9] can cure diseases caused by witches. But after admitting this, they usually continue to add that if he can cure the disease, he must be able to cause one too. So he is always susceptible to people's doubt that he himself is a witch (*ata porho*).[10]

2.3 Mothers

I am to deal with the kind of knowledge (*orho mbe'o*) that is supposed to give power (*orho negi*) to both witches and healers. Here in this section, I pick up one such type of knowledge called "the mothers" (*ine*) and explain it in some detail.

In the Ende cosmology, every thing or phenomenon is said to have a "mother" (*ine*). If one knows the name of the mother of a certain thing, it is said, then one can have a full control over that thing. Thus, if one knows, for example, the name of the mother of maize (*ine jawa*), you are sure to have a good harvest of maize. Furthermore, you can command maize in someone else's field to flee from there so that the owner of the field will get a bad harvest.

Diseases have their own "mothers" too. If one comes to know the name of the mother of a disease, say toothache (*ngesu*), then one can cure the *ngesu* type of toothache. Of course, that means that he can, possibly, cause it too.

Those are the kinds of knowledge that both witches and healers are supposed to have and that give them power (*orho negi*), for good or evil.

2.4 Knowledge Acquisition

There is only one way of acquiring this kind of knowledge in Ende. That is, as I stated at the beginning of this chapter, one has to buy (*mbeta*) knowledge. A scenario of acquiring this kind of knowledge goes like this. First, he who wants to have a certain piece of secret knowledge (let us call him "the buyer") visits, secretly, a person who is believed to have the knowledge ("the seller"). The seller, in most narratives, is said to live in a remote village in the west ("west" is a kind of evil direction). At night, continues the story, the buyer sits in a specially obedient way (called *jou*) in front of the seller and hands him money. The seller then whispers the content of the knowledge to the buyer. People like to talk about this kind of scenario of buying knowledge but never put any more details than the one I recited earlier. For, it should be apparent, if one knows details of the way, then it might mean that he himself did the "buying" of illegitimate knowledge (and thus is a witch).

Buying (and selling (*teka*) also for that matter) is a "marginalized" type of transaction in Ende, just like witches and healers are "marginalized" beings. As was noted earlier, Ende is a gift-oriented society, where market-related transactions such as buying and selling are "marginalized." To

understand the special meaning attached to "buying," we have to understand the meaning of what is regarded as socially approved values in Ende. Let me now proceed to explaining the kinship and exchange, the prototype of what is regarded as legitimate in Ende.

3. Kinship and Exchange in Ende

As shall be made clearer, the ideologies of kinship and exchange are two sides of one coin in Ende. Still, we have to deal with them one by one. Let me start with kinship.

3.1 Kinship Principles

There are two kinds of kinship principles in Ende: (1) patrilineality and (2) mother's brother's daughter marriage.

In the patrilineality complex, patrilineally related persons (let me designate them AG/AG)[11] are regarded as forming "one family" (*ari ka'e*)[12] See the following figure.
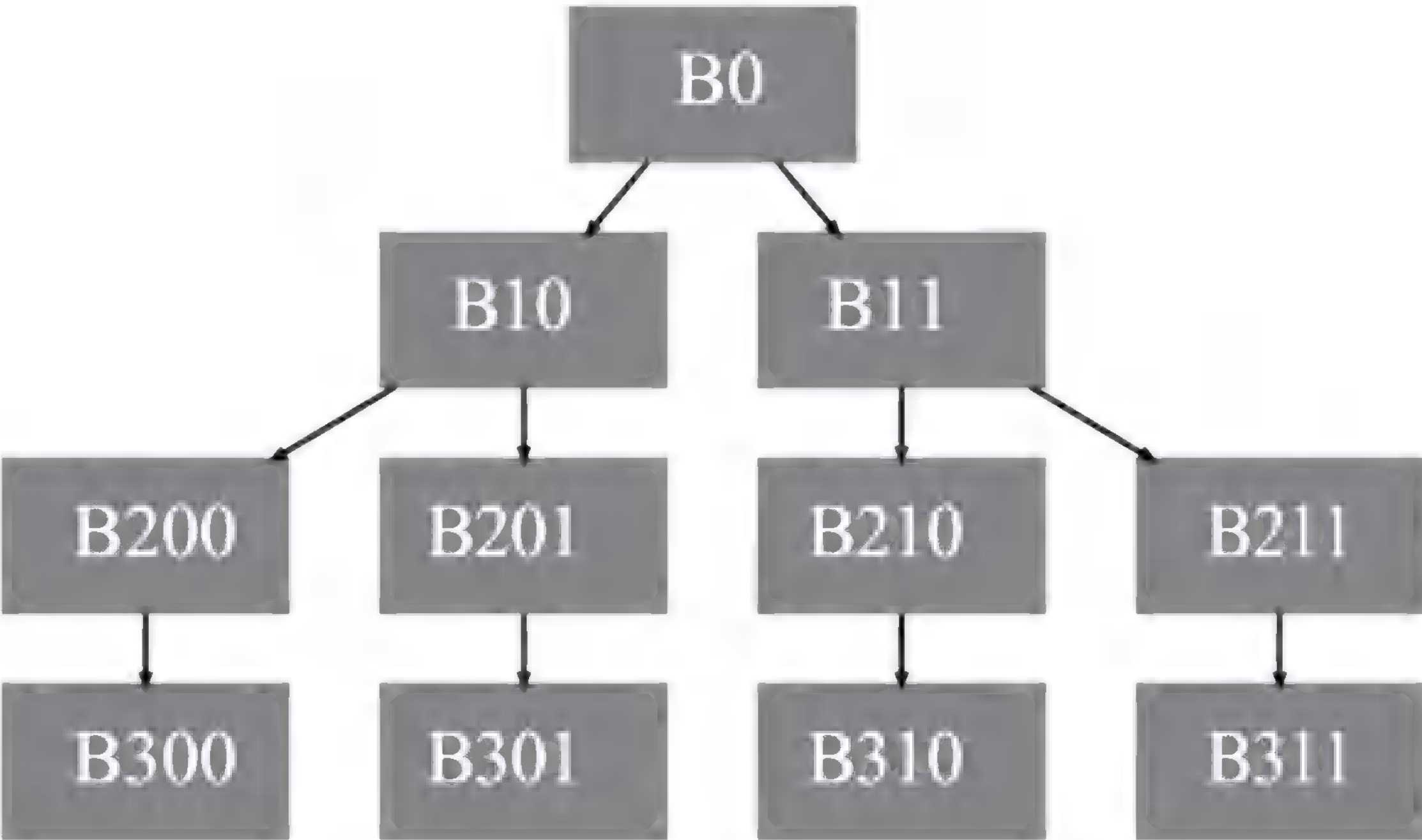
The boxes represent male persons, and the lines connecting them represent filial (father to son) relations. Let us pick B201 for our focal point. Now, B10 is his father and B0 is his father's father (grandfather). B301 is his son. B200 is his brother, and B300 is his nephew. All the men (all the boxes) in this figure are patrilineally related and, thus, are regarded as forming "one family." Though the genealogical depth (four in this case)

can become deeper, we can safely take this group for an average group to be found in Ende. This is a building block of an Endenese society. In one village, one can find four to ten such patrilineal groups.

Now that we have blocks, we need cement to connect them. That is the second principle: mother's brother's daughter marriage.

According to this principle, a man is supposed to marry his mother's brother's daughter. See the following figure.
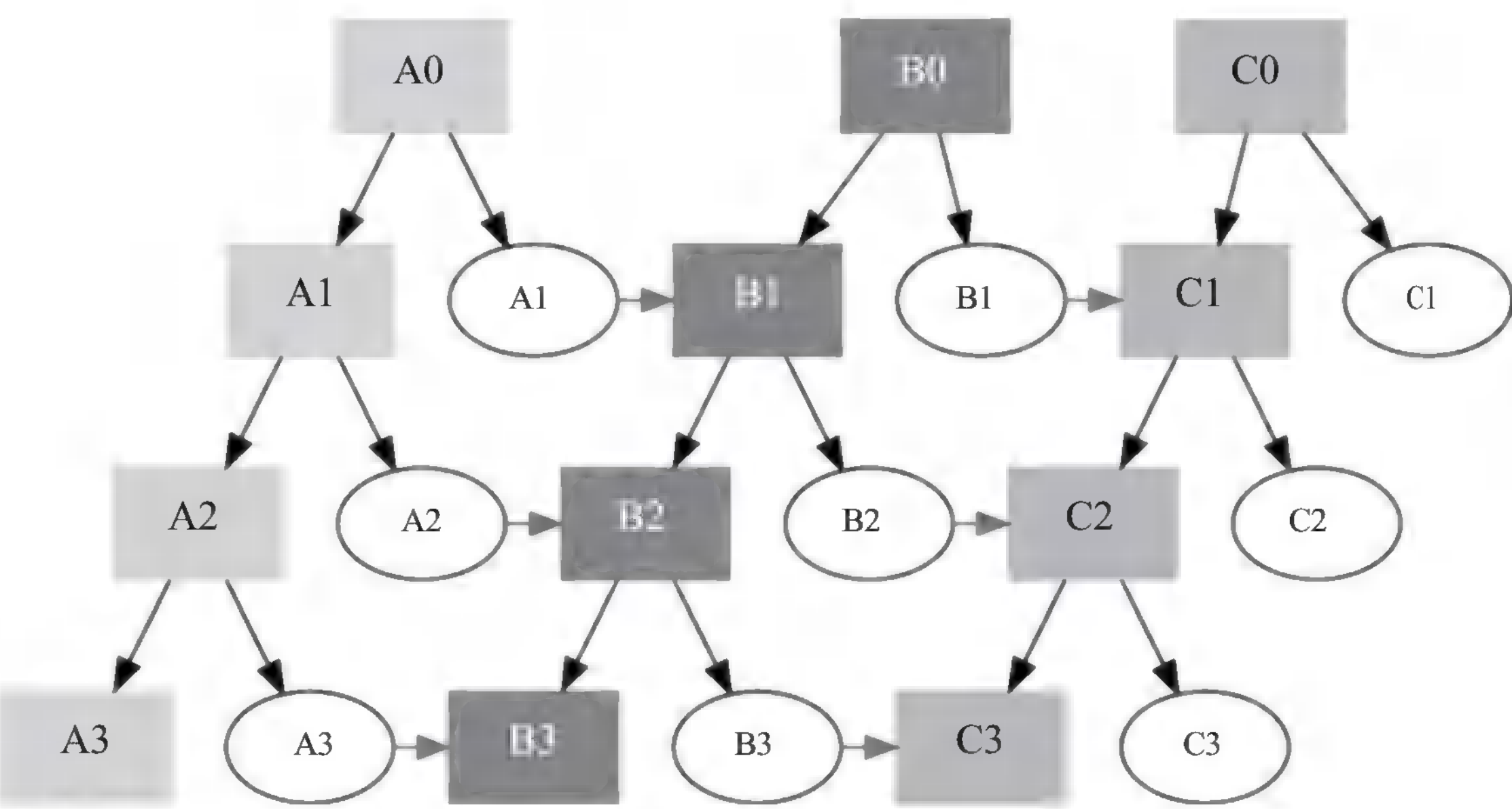
The boxes represent men (as in the previous figure) and the circles women. The downward lines are filial relations (father/mother to son/daughter). The lines going from left to right represent marriages. Let us take B2 for our focal point. B1 is his father, and B0 is his grandfather (father's father) as in the previous figure. Now enter women (circles). a1 is his mother (because B1, his father, married her). b2 is his sister (because she is born to the same father/mother as B1). Now let us consider his (B2's) spouse. According to the principle, he is supposed to marry his mother's (a1's) brother's (A1's) daughter, that is a2.

Let us now see the picture as a whole and focus on the flow of women between patrilineal groups (A, B and C). B1 (B2's father) was married to a woman (a1) from a group A. B2 is now married to a woman (a2), also a woman from the same group (A). Let us consider his son (B3); he is supposed to marry his mother's (a2's) brother's (A2's) daughter, that is, a3, another woman from the group A. In short, men of the group B always are married with women of the group A. I will not go into details here, but it will be apparent that men of the group C are always married with women of B. This is how building blocks are cemented together to form a society in Ende. See the following figure.
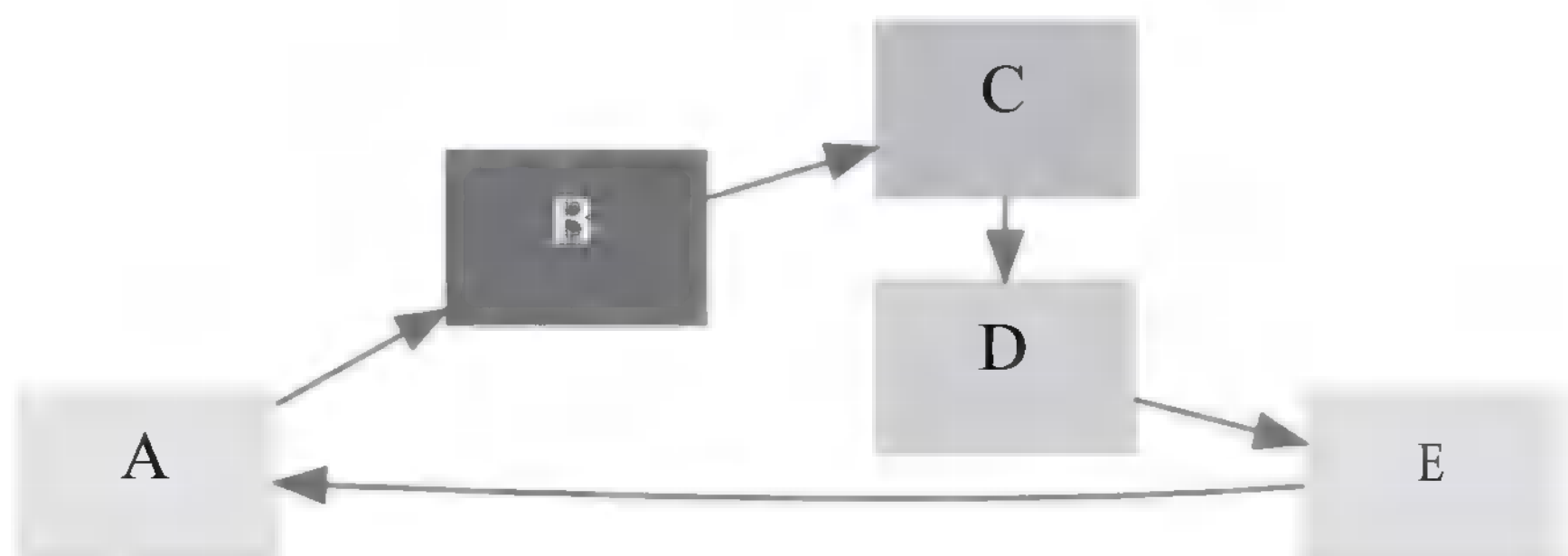
Here we see five groups (A to E). Women born to the group A are destined to be married to men of group B; women of B to C and so on. Group A is a wife-giving group to B; B is a wife-taking group to A. Let me designate a relationship between man of A and a man of B as WG/WT (wife-giver/wife-taker). In the Endenese language, one's wife-giver is called *ka'e embu* and wife-taker *weta ane*.

The representative of one's wife-giver is one's mother's brother, the representative of the mother's natal group. In the Endenese ideology, wife-giver, especially one's mother's brother, is regarded as spiritually superior to the wife-taker. In an extreme case, one's mother's brother can cause death to his sister's son.[13] But, be it noted, the death is caused because of the latter's negligence of social obligations, not because of the former's greed or jealousy, the anti-social feelings.

3.2 Exchange System

Now about the exchange system in Ende.

Between AG/AG (patrilineally related persons), there is no exchange possible, in theory, because they are part of "one family." Everything is, supposedly, to be shared by members of one group. *Bagi* ("divide/share") is the only way of describing a transaction between AG/AG.

In contrast to AG/AG, the relation between WG/WT (a wife-giver and a wife-taker) is an arena of exchange *par excellence*. The transaction between them is called "give and take" (*pati* and *simo*). When, for example, the date for a marriage ceremony gets closer, we can observe people going to and fro from one house to the other, exchanging such things as elephant tusks (*toko*), golden items (*wea*), water buffaloes (*kamba*), food stuff such as rice (*are*), bananas (*muku*) and what not. The important thing about this kind of exchange is that there is a fixed flow of things. Certain things go only from WT to WG; elephant tusks, gold items, water buffaloes and other livestock except pigs should be handed by WT to WG. Rice, bananas, pigs, textiles (*rhuka rhawo*) and other things should be given by WG to WT. See the following figure.

Rice, Banana,
Pig, Land,
Textile, Woman

Wife Giving
Group

Wife Taking
Group

Elephant Tusk,
Gold item,
Water buffalo
and other animal,
Money
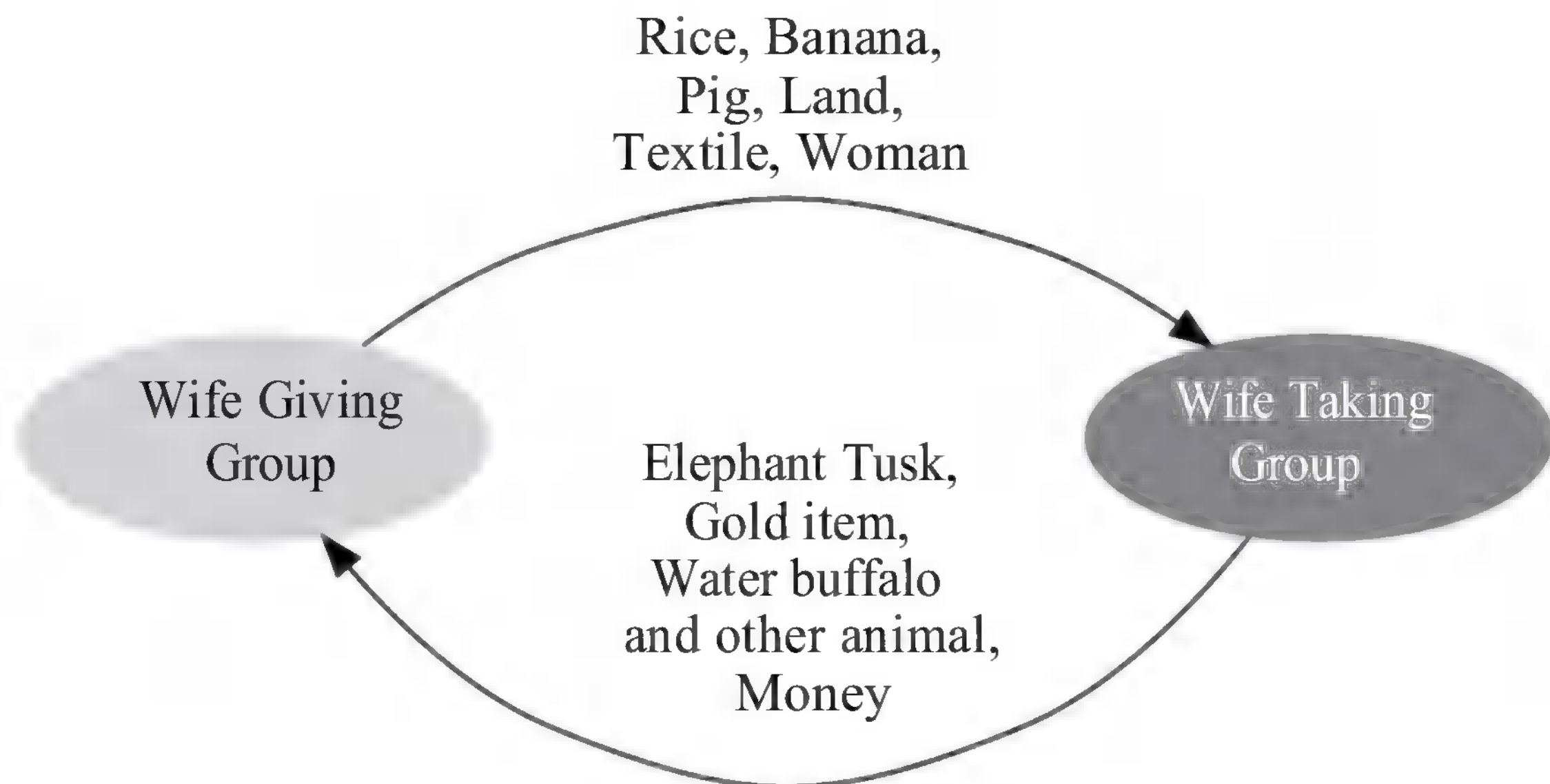
3.3 The Marginalized

Thus, in the center of Ende society, one can find AG/AG and WG/WT relationships and accompanying exchanges such as "dividing," "giving" and "receiving." Besides these "legitimate" types of kinship relationships and exchanges that *count* socially, there are other kinds of relationships and exchanges that do not count socially. Now let me proceed to these "marginalized," as it were, kinds of relationships and exchanges.

In the kinship field, (besides AG/AG and WG/WT) there is the third kind of relationship, which is outside, literally or metaphorically, the legitimate field of kinship: non-relatives or strangers (*ata*). Let me designate two persons in this relationship as NR/NR. This category (NR) is, more or less, a theoretical construct in the sense that villagers hardly see non-relatives in day to day activities. They see them only when they go to a weekly market on the coast and to a far away place (like Java or Malaysia) as migrant laborers.

The corresponding kind of exchange is "buying" (*mbeta*) and "selling" (*teka*), the marginalized type of exchange in Ende. The Endenese people say that they are very ashamed (*mea*) if they are paid by money in return for proffered service, and that is the reason why they go to faraway places to earn wage as migrant laborers. Those places are, if I follow Auge's terminology (Auge 1995), "non-places." They go to non-places, land of non-kin, if I expand the terminology, so as to do non-exchange.

We are now in a position to answer, partially though, the original question: "why does one have to buy knowledge in Ende?" The answer is: a marginalized type of knowledge should be handled in a marginalized type of transaction. This is, as I said, still a partial answer. To get a full answer, we have to go several more steps further into the Endenese ways of thinking.

3.4 This Messy World

An important thing about the mother's brother's daughter marriage rule is that it scarcely occurs. In this way, the world is not ordered as is described by the ideological model; actually it is a very messy world, like tangled spaghetti noodles. For example, one can be a WT to a specific person (say, via one's mother), while, tracing other genealogical connections, one can be an WG as well (via one's wife, perhaps). See the following figure.

WG/WT

A   WT/WG   B

NR/NR
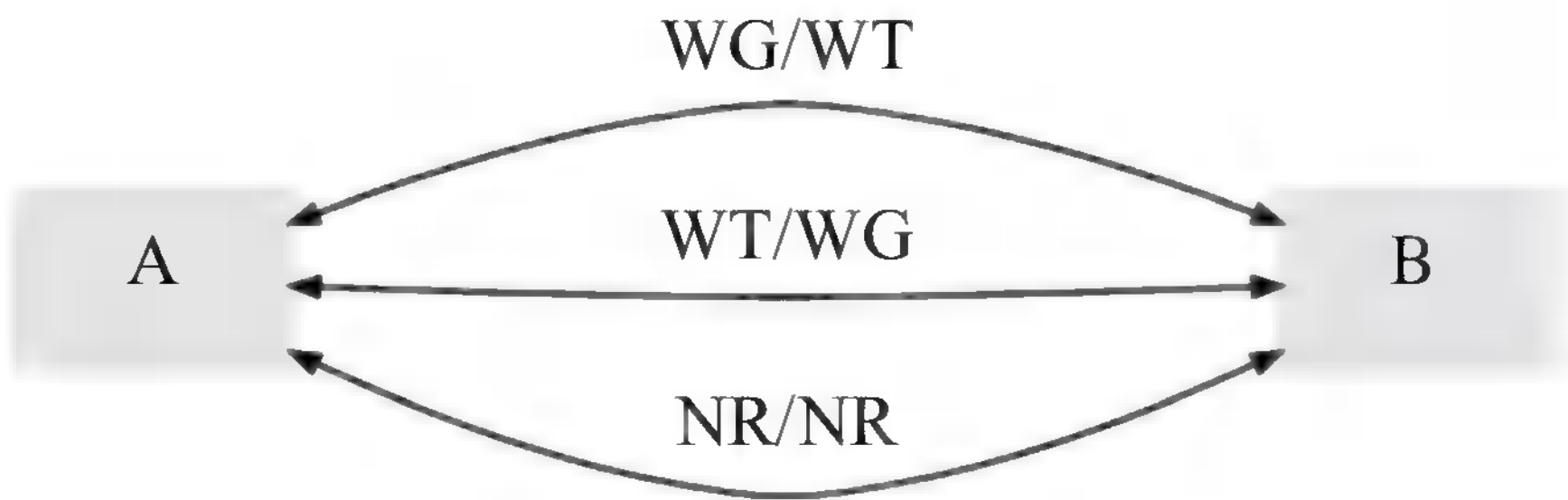
Exchange comes to rescue this desperate situation. As Mauss said: friends make gifts but gifts make friends (Mauss 1990 (1950)). Translated in the Ende context, the saying goes: kin make gifts and gifts make kin.

Let me recapitulate the correspondence between types of kinship and types of exchange in Ende. An AG shares things with his AG; A WG gives pigs and textiles and such to his WT and a NR buys and sells things with another NR. These are the examples of "kin make gifts." Now I introduce examples of "gifts make kin" type of transactions. If I *share* a piece of textile with you, we can become AG/AG without regard to the other existent relationships between us; if I *give* you a piece of textile, then you become my WT; if I *sell* you a piece of textile, then you become an NR to me. See the following figure.

WG/WT

A   WT/WG   B

NR/NR
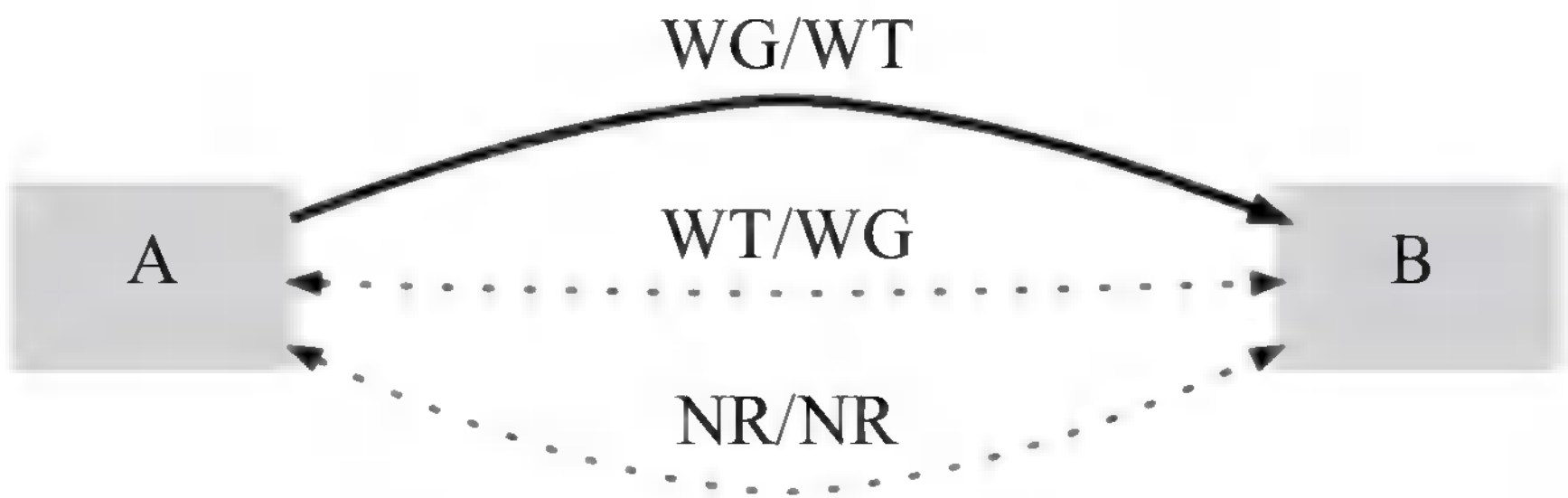
3.5 Alienability and Inalienability

As I said at the beginning of the chapter, one has to *buy* knowledge in Ende, and that it is the only way permissible to acquire knowledge. Why

does one have to buy knowledge? To answer this question, one has to see more into the opposition between giving and selling. The symbolic opposition, to be expounded here, between the two is applicable to our society as well as the Ende society. So let us recur to our own way of dealing with buying and giving.

When you *buy* a pair of gloves in a shop, you can easily throw them away if you don't like them. Commodities you own do not constitute what you *are*; they are merely what you *have*. Gloves are gloves are gloves and nothing more.

But it is not the case with giving and the things given (that is, a gift).

A gift is something inalienable (from the original owner). If, for example, somebody *gives* you a pair of gloves, you dare not throw away gloves (even if you don't like them) because you feel her personality (that is, what she is) is still attached to the gloves (gift). You feel that they are, in a way, part of what she is.

In sum, one could say that giving and taking connect the two parties, whereas selling and buying separate them. It may be suggestive that the Endenese word for "to buy," *mbeta*, means also "to cut/sever." Things that are given have something from the original owner. Things that are bought are completely detached from the original owner.

3.6 Knowledge and Strength

Another factor that should be taken into consideration in this context is the idea of supernatural power or strength (*orho negi*). The strength (*orho negi*) and the knowledge (*orho mbe'o*) are regarded as one and the same thing in Ende. The more knowledge one gets, the more powerful one becomes. Knowledge can be gained as strength can be gained. Likewise, knowledge can be lost as strength can be lost.

Now comes the full answer to the original question, that is: Why does one have to *buy* knowledge? Because the knowledge should be separated from the original owner. If you *are given* knowledge, it will not constitute your strength; it is still attached to the original owner and is still part of his strength and not yours. Thus, you have to *buy* it, in order to separate it from the original owner and make it part of your strength.

* * * * *

I am not sure whether philosophers agree that this type of data (based on field-work) and this type of analysis of them (based on "total social facts") are the step toward the "multi-cultural" epistemology, mentioned at the end of "Manifesto" (Stich and Mizumoto (in press)) in the previous volume. Still, I hope this chapter will become, at least, a stimulus to some of the readers of philosophical persuasion.

Notes

1. I am not saying that the Ende society has never been influenced by market economy; as far back as in the 19th century, Flores (including Ende) was famous for its copra export to the Bugis traders. The point is that market exchange is marginalized in the Endenese ideology.
2. If we ask the meaning of the word *mbe'o*, any Endenese who is well versed in Indonesian (the national language of the country) would answer that it is "tahu" (in Indonesian). I have never met an Endenese who can use English fluently. Here I am assuming that the Indonesian word "tahu" is an exact equivalent of the English word "know."
3. This is also true of the Japanese language.
4. Perhaps, the same can be said of the English word, "know"; see Austin 1979 (1946).
5. *Orho* is a nominalizer like English "-ness."
6. Another distinctive feature of the word *mbe'o* is that it is often used as an intransitive verb without an object. Used this way, the word is more an adjective ("knowledgeable") than a verb.
7. *Negi* means "strong" and, as I said earlier, *orho* is a nominalizer.
8. I put just one piece of information about the legitimate type of knowledge, here in this footnote, for the interested reader: in contrast to the illegitimate type of knowledge that should be "bought," the legitimate type of knowledge is "conveyed" along the patrilineal descent, say, from father to son, for example.
9. An *ata marhi* can be either male or female.
10. See my article "Mother's Brother Upsidedown" (Nakagawa 1986) for more on the witches and healers.
11. From "agnates," patrilineally related persons.
12. Literally "brothers."
13. This is done, according to one Endenese informant, by a special act of *pui siku*, "touching one's elbow."

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11 Conceptual Construction in Epistemology

Why the Content of Our Folk Terms Has Only Limited Significance

Thomas Grundmann

Standard Analytic Epistemology (SAE) has dominated epistemology in the English-speaking world for much of the 20th century and beyond (Bishop and Trout 2005: 8). SAE can be characterized by its use of a specific method, namely the method of cases. Typically, its proponents substantiate or reject general accounts of knowledge or (epistemic) justification by testing whether they accord with their intuitive attributions of 'knowledge' or 'justification' to particular cases.[1] This method treats intuitions about particular cases as evidence—evidence that is based on the individual cognizer's competence with respect to her use of the relevant epistemic concepts. The thought is that she can use her conceptual competence to elucidate what knowledge and justification in fact are. Accordingly, conceptual analysis provides us with a means to articulate epistemic reality in itself, not just our representations of it.[2]

Currently, dominant views in philosophy of language and philosophy of mind cast some doubt on the reliability of conceptual analysis. For example, externalist views of content challenge the idea that the cognizer's application-dispositions properly reflect the concept's actual application-conditions (Putnam 1975). Other concerns relate to SAE more directly. In this respect, three challenges are of major interest here: (a) the challenge from cross-cultural variation of epistemic intuitions, (b) the challenge from cross-linguistic diversity of epistemic terms, and (c) the challenge from the insignificance of epistemic folk concepts.

In my chapter, I take these challenges as a starting-point for exploring the prospects of an alternative methodological approach that I call 'alethic instrumentalism'.[3] The core idea behind the approach defended here is to start with a properly designed epistemic goal and then to develop a framework of instrumentally valuable methods oriented toward this goal. This results in a somewhat revisionary framework of newly constructed core epistemic terms. In the first section, I examine how serious the three previously mentioned challenges are. Taken together, they sufficiently motivate the search for alternatives to SAE. In the second section, I discuss some standard alternatives to SAE and consider their problems and limitations. In the third section I elucidate the foundations

of alethic instrumentalism, and in the fourth section, I develop it in more detail. I proceed by addressing a number of methodological and content-related objections to this approach and conclude with some general considerations.

1. Three Challenges to SAE

Proponents of SAE rely on the methodological assumption that their individual intuitions about epistemically relevant cases can be generalized. In their seminal 2001 paper, Weinberg, Nichols, and Stich presented evidence that suggests that intuitions about Gettier-cases are not sufficiently stable to ground epistemology. The competent speakers of English that participated in this study varied in their judgments about Gettier-like cases depending on their cultural background. Whereas the majority of undergraduates from Rutgers University with a Western background judged that knowledge is absent in the Gettier case and hence reproduced the textbook view, the majority of competent speakers with an East Asian background claimed that knowledge prevails in the Gettier case (Weinberg et al. 2001). Provided one allows that the extension of the English verb 'know' does not differ when uttered by competent speakers with different cultural backgrounds, the study suggests that epistemic intuitions are strongly influenced by factors that are irrelevant to the truth of knowledge-attribution. This would threaten the trustworthiness of epistemic intuitions.

How serious is this challenge from cross-cultural variation of epistemic intuitions? Interestingly, in more recent studies the cross-cultural variation of intuitions about Gettier-cases could not be replicated (see Nagel et al. 2013; Seydsayamdost 2015; Kim and Yuan 2015). Although this sounds like good news for proponents of SAE, it seems too early to come to a final verdict on this issue. Intuitions in general seem to be influenced by a variety of irrelevant factors (Alexander 2012). Whether cultural background is among them and whether this influence is strong enough to undermine the trustworthiness of intuitions even under favorable conditions is still an open question. So it seems fair to conclude that at least a lingering worry remains from the initial challenge.

While the challenge from cross-cultural variation of epistemic intuitions concerns intuitional variation among competent speakers of the *same language*, typically English, the challenge from cross-linguistic diversity of epistemic terms concerns extensional differences between related locutions in *different languages*. Here is a recent articulation of this worry by Stich and Mizumoto (2018: ix–x):

> Contemporary English is one of approximately 6,000 languages spoken in the world. It is the native language of less than 6% of the world's population. Moreover, when Western epistemology emerged,

in Ancient Greece, English did not exist. So why should the usage of sentences in contemporary English in which 'know' and cognate words occur, the concept of knowledge expressed by those words, or features of the language of knowledge attribution in contemporary English, play any special role in epistemology? . . . Is there any justification for this practice? One possible answer invokes what might be called the 'Universality Thesis', which claims that the properties of the English word 'know', English sentences of the form 'S knows that p' and related locutions that have been studied by Anglophone epistemologists are shared by the standard translations of these expressions in most or all languages. If this were true, then the focus on English would simply be a matter of convenience for the vast majority of analytic epistemologists who are native speakers of, or fluent in English.

To see what is at issue here, suppose that the Universality Thesis is false. In this case, different languages will contain epistemic terms that never share their meanings and extensions completely. There wouldn't exist any Chinese, Swahili, or Hindi term that has the same extension as the English word 'knowledge'. If this were true, we would face the following dilemma: We can either use the standard for the English term 'knowledge' as the universally legitimate epistemic standard, or we can relativize epistemic standards to languages. But choosing the first horn would be completely arbitrary. Why should the standard related to the English term rather than to the epistemic terms of any other language have universal significance? (Stich 1998: 107). However, if we choose the second horn, epistemology becomes completely parochial (Bishop and Trout 2005: 108). This would result in a plurality of language-specific ethno-epistemologies. The underlying idea has attracted epistemologists who are sensitive to cultural diversity (see Mizumoto2018). But why should one care about what standards apply to knowledge in one's own or someone else's language? Prima facie, these standards do not have any more normative force than conventions that are accepted within a specific social group. It seems completely contingent that we in fact follow the rules of one particular group rather than any other. Hence, understanding epistemology along the lines of ethno-epistemology would undermine the normatively binding force of epistemology in general.

The prospects of SAE therefore depend on the correctness of the Universality Thesis. If every language contains epistemic vocabulary with similar semantic properties, it is likely that epistemic terms express universal epistemic concepts. Then we can use our native language to analyze these concepts. But is the Universality Thesis correct? The body of experimental cross-linguistic studies of epistemic locutions is rapidly growing, and I cannot offer a representative survey in this chapter. Rather, I will report some data from three recent studies. First, Machery et al. (2015)

have tested speakers of Japanese, Bengali, Portuguese, and English on their Gettier intuitions. Surprisingly, locutions for knowledge in all four languages exhibit an anti-luck condition. This suggests, as Machery et al. (2015: 8) put it, 'that Gettier intuitions may be a reflection of an underlying innate and universal core folk epistemology'. Second, Mizumoto (2018) conducts a cross-linguistic study of locutions for knowledge in Japanese and English. Accordingly, Japanese has two knowledge verbs rather than one: 'shitte-iru' and 'wakatte-iru'. The former expresses receiving information; the latter refers to a deeper understanding that is agent-based. A cross-linguistic comparison between responses of Japanese and English speakers to philosophically crucial cases (like Gettier, TrueTemp, fake barn, bank case, etc.) shows that 'wakatte-iru' but not 'shitte-iru' displays the same features as the English verb 'know'. Does this suggest that 'wakatte-iru' is the Japanese counterpart to the English verb 'know' and that the Universality Thesis is correct? Mizumoto questions this claim. According to him, 'know' in English might equally well be ambiguous between 'shitte-iru' and 'wakatte-iru', such that different English speakers rely on different meanings of this term when they form apparently conflicting judgments about the crucial cases. However, I do not see why the data call for this explanation, since even users of the Japanese 'wakatte-iru' exhibit somewhat conflicting judgments about the relevant cases. So, we need not invoke the ambiguity-thesis to explain unstable linguistic behavior. As far as I can see, the data support the Universality Thesis, at least to some degree. Third, Matthewson and Glougie (2018) have discovered that the linguistic tracking mechanisms, as well as the role and the standards of justification for assertion, are similar across native American languages and English. This study provides further evidence in support of the Universality Thesis, although a cross-linguistic study of the semantic properties of justificatory terms is still pending.

The collected data provide evidence for the truth of the Universality Thesis with respect to epistemic terms. However, at this stage the body of evidence is too small to justify the claim that this thesis has been sufficiently confirmed. The studies conducted so far need to be replicated, and cross-cultural studies of further languages and of further semantic aspects of the relevant vocabulary are required. The challenge from cross-cultural diversity of epistemic terms has not yet been fully answered.

Let us now address the third threat to SAE: the challenge from the insignificance of epistemic folk concepts. Here is one way of setting up this challenge: Suppose that there is basically no cultural variance of intuitions about knowledge or justification and that epistemic terms for knowledge and justification have similar semantic properties across most or all languages. One might still wonder whether and why epistemology should be built upon universally shared folk terms. The worry is that these terms might not refer to what is epistemically most relevant and valuable. Suppose that linguistic analysis finally establishes that

the English term 'knowledge' (and its counterparts in other languages) refers to true belief (see Sartwell 1992; Goldman 1999: 23–25, calls this 'weak knowledge') or is even non-factive (as suggested by Hazlett 2010). Then it would make little sense to assess epistemic achievements only in terms of knowledge. Better standards seem available, even if they are not expressed by any of the epistemic core folk terms. Or, to choose another example, suppose that the English term 'justification' (or its counterparts in other languages) refers to whatever is licensed by the epistemic standards that are accepted within the cognizer's social environment (Goldman 1988 calls this 'weak justification'). You still might want to say that we could and should criticize the standard of the group from an epistemic point of view. Again we would take a stance that could not be articulated in terms of epistemic core folk vocabulary.

Epistemologists should not worry too much that the folk concepts may not carve at nature's joints. This worry would presuppose that epistemic affairs are completely objective and unconnected to the goals and concerns of the cognizer. Whereas such a view may be plausible for physics or metaphysics, it seems inapt for epistemology. But is it not then perfectly reasonable to assume that the universality of epistemic folk terms indicates that they are suitable to pick out those things that epistemically really matter to us? Not so fast. The universality of folk epistemic concepts makes it likely that these concepts pick out things that are anthropologically important. However, it does not suggest that the things picked out by these terms are of major *epistemic* importance. For example, our epistemic folk terms may not be *purely* epistemic. Theories of practical encroachment (Stanley 2005; Fantl and McGrath 2009: 194–212) suggest that the attribution of knowledge (or justification) partly depends on how important the truth is for the believer. Impure categorizations like these may be important in practice, but they do not necessarily indicate *epistemological* importance. Other non-epistemic factors may also be relevant to our folk categorization. It is often highly desirable to possess reasons for one's assertions that can be articulated in conversation. But it is less clear whether this internalist requirement is an epistemic requirement rather than a purely dialectical desideratum. Folk epistemic concepts may also be the result of compromising strategies that combine unrelated and sometimes even conflicting conditions in a single concept. For this reason, epistemic folk concepts may be hybrid or even incoherent. For example, according to Beckermann (2001) our concept 'knowledge' merges the epistemic goal of truth with an appropriate epistemic means toward it.[4] You might also think that our concept 'justification' combines internalist standards of first-person guidance with externalist standards of third-person assessment. Finally, one can take a genealogical stance on our epistemic folk concepts (see Craig 1990). One then raises questions such as the following: What was the point of introducing the concept—of knowledge, for instance—in the first place? Most likely, it

was meant to flag certain epistemically desirable states or valuable sources of information that are achievable and often achieved in real life. If this is the correct explanation of why we have the concept of knowledge then one should expect that only minimal standards are related to it. Ideal or optimal standards would conflict with the achievability of knowledge. And there is no point in introducing a concept that does not refer to anything that is actually instantiated. However, if 'knowledge' only involves minimal standards, then you might have theoretical reasons to also introduce higher standards that are not expressed by the existing epistemic folk terms. Suppose that someone told Descartes that our ordinary term 'knowledge' refers to true belief without requiring certainty. Surely, he would not give up his high standards of assessment. Most probably, he would reply that our ordinary term is of limited significance and should be replaced by another term that properly reflects the relevant standards of epistemic evaluation.[5] The preceding criticism of folk epistemology relies on an epistemic point of view that is not shaped by our folk terms. How is that point of view accessible to us? We need to have a grasp of our guiding epistemic values and goals that is independent of currently used folk concepts.[6]

What is the upshot of the previous discussion of the three major challenges to SAE? Although there is some evidence that supports the view that epistemic intuitions (about knowledge and justification) do not vary with cultural background and although there is further evidence that epistemic terms from different languages categorize epistemic reality in roughly the same way, it is still an open empirical question whether epistemic intuitions and epistemic terms are cross-culturally sufficiently robust to provide us with a stable and solid foundation for epistemology. Moreover, epistemic folk concepts need not pick out the epistemically most relevant and most valuable properties. Taken together, these concerns about SAE motivate the search for a new approach to epistemology that is methodologically independent of our folk linguistic and conceptual resources.

2. Typical Alternatives to SAE

One approach to epistemic reality that does not rely on the analysis of our epistemic folk concepts is full-blown naturalism (see Kornblith 2002). This kind of naturalism combines metaphysical and methodological strands. According to the metaphysical aspect of full-blown naturalism, knowledge constitutes a natural kind with a certain explanatory power. In particular, knowledge plays a relevant role in behavioral explanations of cognitive ethology. According to the methodological aspect of full-blown naturalism, our concept of knowledge is a natural kind term that is neither very informative nor trustworthy with respect to the nature of its referents. Proponents therefore first select paradigm cases that clearly

belong within the extension of this term and then examine the underlying nature of these cases empirically. Obviously, this approach bypasses any reliance on epistemic intuitions and conceptual competence and is therefore a genuine alternative to SAE.

I have two main concerns about this naturalistic approach to knowledge.[7] Both of them mirror the previous challenges to SAE. First, there is the worry that what counts as paradigmatic (for knowledge) may be controversial between different cultures. It might even be controversial within our own Western culture (see Alston 2005: 25). Consider, for instance, sceptics and Mooreans: Whereas the sceptic will claim that there is no paradigmatic case of knowledge, Mooreans will maintain that there are all kinds of cases of mundane knowledge, such as of course that one has hands.[8] The same seems to be true for internalists and externalists: Whereas the former will take cases of reflective knowledge as paradigmatic, the latter will claim that what Sosa calls 'animal knowledge' is paradigmatic for knowledge. It seems likely that controversies about paradigmatic cases across cultures will be even more serious and abundant. If this is true, the choice of epistemic paradigm cases is too unstable to rest epistemology on it. Second, suppose that people broadly agree about the cases that are paradigmatic for knowledge and that knowledge constitutes a natural kind that causally explains successful (animal) behavior. One might still ask why this should matter for our *epistemic* assessment of knowledge. That knowledge is something epistemic that plays a robust causal role does not by itself show that knowledge is among the epistemically most important and valuable things. It rather shows that knowledge is important in other than epistemic respects, namely as a causal factor in the natural world. So, the challenge from insignificance recurs.

Can we make progress by aiming for Carnapian explications instead? Carnap (1950: Ch. 1) introduced this idea to recommend a specific procedure for concept transformation: We should change our pre-theoretic and inexact concepts to adjust these concepts to scientific standards and make them properly usable within scientific contexts. This transformation was originally understood as an intentional regulation of a given concept's use. Since this might be hard to achieve—given externalist views of content—one might reinterpret the basic idea such that it recommends a replacement of a pre-theoretic concept by a technical term within contexts.[9] The process of explication follows certain rules: It should render the pre-theoretic *explicandum* more exact, theoretically more fruitful with respect to its intended use, definitionally simple, and the resulting *explicatum* should be sufficiently similar to the *explicandum*. Although Carnap originally designed the method of explication as a means to adjust folk concepts to scientific needs only, one can easily adopt it to the context of epistemology. Here we start with epistemic folk concepts and then render them sufficiently precise, coherent, definitionally simple, and adjusted to the needs of epistemology. Obviously, this

enterprise of transforming a given epistemic concept is not dictated by epistemic intuitions or the competent use of folk concepts.

Explications may help us to overcome problems from cross-cultural diversity and variation. Suppose the Universality Thesis is false and hence concepts of knowledge or justified belief are not exactly co-extensional across most or all human languages. As long as there is significant cross-linguistic overlap among the epistemic terms, we may explicate these terms in the direction of their common core. In such a way, explication may serve as a means to establish a stable foundation for doing epistemology. However, the basic idea of explication is to enhance a given concept by making it more precise, coherent, and properly usable, rather than to change its content radically. It is still meant to fix, repair, and clean up a given concept. Or, as Carnap (1950: 7) reminds us: 'The explicatum is to be similar to the explicandum in such a way that, in most cases in which the explicandum has so far been used, the explicatum can be used'. Consequently, the extent to which the required transformation can change the extension of the folk concept is limited. Explication is always conservative in this respect. But then it does not have the resources to overcome the challenge from insignificance in general. If the folk concepts do not refer to the most relevant and valuable things in the epistemic domain, small semantic changes that are within reach of explication need not alleviate the fundamental problem.

Conceptual ethics can be understood as a radically liberalized version of explication. Accordingly, normative conceptual choices (answers to questions like 'Shall we continue to use concept C?' or 'How shall we use C in the future?') are not motivated solely by scientific demands but rather by a plurality of values and interests that may be either domain-specific or more broadly pragmatic, moral, or even political (Burgess and Plunkett 2013a, 2013b). Moreover, the extent to which the use of a given concept can be changed is not narrowly limited. There can be pragmatic reasons to continue using numeric concepts in mathematics or physics even though it has turned out that numbers do not exist. Moreover, terms can be redefined in radical ways if this serves our political interests and goals. In this vein, Haslanger (2012) has defined 'woman' as someone who is socially subordinated in some way on the basis of presumed female gender.

Conceptual ethics fares better than orthodox explication with respect to the challenge from insignificance. Suppose that the epistemic folk terms do not capture what is epistemically most important and valuable. Then minor conceptual changes that are within reach of explications might not be radical enough to adjust the folk concepts to the relevant epistemic properties. In contrast, conceptual ethics is not restricted in the same way and may radically depart from the ordinary usage of terms and hence permits that the epistemic folk terms are wholly transformed in light of one's epistemic priorities. The problem with conceptual ethics is that it is

too liberal. According to it, conceptual decisions about epistemic terms need not be governed by the goal of representing epistemic values accurately. Many non-epistemic goals, values, and interests may also rationally influence our conceptual choices in the epistemic domain.[10]

Let us finally turn toward the epistemic desiderata approach (Alston 2005). According to Alston, persistent and intractable controversies in epistemology indicate that the prevailing disputes are of a merely verbal rather than genuine[11] and substantial kind.[12] In his view, it is not true that at most one side has the correct understanding of justification. Rather, different epistemologists emphasize different epistemically valuable properties under the same label. In Alston's view, there are many different and irreducible properties of beliefs that possess a positive value in the cognitive domain. It is thus a virtue to cultivate 'a radically pluralistic approach' to epistemic values (Alston 2005: 39). Alston claims that under the overarching cognitive umbrella of achieving true beliefs, many different spheres of epistemic value reside. Among them are truth-conductiveness, discrimination of true beliefs, responsibility, or more broadly construed aims such as understanding, coherence, or systematicity.

Radical pluralism has the advantage of being integrative rather than exclusive. However, it also has a clear downside. If there are many unrelated epistemic values, how should one prioritize them? In the end, one needs a clear answer to the question of what one should ultimately believe. In this respect, an account that says what one should believe relative to each of many uncoordinated epistemic values does not help much. I do not see how Alston could respond to this coordination problem.[13]

3. Alethic Instrumentalism: The Foundations

Given the rather dim prospects of the alternatives to SAE that have been considered, let me start afresh. In order to capture what really matters epistemologically, we should set aside our epistemic folk terms and begin with an examination of the final (purely) epistemic goal of cognitive inquiry. Further epistemic values will then be merely instrumental with respect to this goal. Whether any given method or cognitive process is instrumentally valuable in this respect is a question that cannot be settled by philosophers alone.[14] However, epistemology can outline the basic requirements for instrumentally valuable methods. Moreover, epistemology can integrate these requirements into a comprehensive theory and then construct new technical terms that properly reflect the relevant epistemic desiderata. This approach will be called 'alethic instrumentalism'. It is based on genuine epistemic values rather than on our folk concepts. Hence, alethic instrumentalism promises to avoid the problem of insignificance. It also avoids the coordination problem that dogged radical pluralism, since there is indeed only one final value in epistemology, and all the other values are, as instrumental values, derivative or

subordinated. The result will be somewhat revisionary with respect to folk epistemology.

What is the final epistemic goal? We are a bit sloppy when we usually claim that *truth* is this goal. What we are really after in our inquiries is acquiring as many true beliefs and avoiding as many false beliefs as possible (see Alston 2005).[15] So, we pursue two goals at the same time. Being ignorant of truths that are out there is an epistemically bad thing, but believing something falsely is also cognitively bad. Formally, it is possible to combine these two final goals into a single one, namely believing something if and only if it is true (Alston 2005: Ch. 2). But whenever we can only approximate this goal, it turns out that there is a trade-off between its two aspects: We can achieve more true beliefs at the cost of also acquiring some false ones, or we can avoid errors at the cost of believing only very few truths (if any).

From an epistemic point of view, both sub-goals are equal. However, practical concerns can motivate us to privilege one over the other. Suppose that it is very important to select all people who suffer from a specific illness in order to put them in quarantine. In this case, it would be wise to run the risk of misidentifying some healthy people as ill just to make sure that no ill person is left out. It seems more important to detect everybody who is in fact ill than to avoid believing falsely of some people that they are ill. In contrast, suppose that a medical diagnosis says that you suffer from an illness that can only be cured by life-threatening surgery: In that case, it seems wise to give preference to avoiding errors in the diagnosis. Both cases exhibit practical considerations that are admittedly important. But these considerations should not play any significant role from a purely epistemic point of view.

It is often claimed that only *significant* or *important* truths are the proper goals of inquiry (Bishop and Trout 2005: 93; Alston 2005). It is certainly true that we find only those truths *interesting* that serve our preferences or that we take to be objectively relevant. But this has relevance only for the motivation of our related projects and actions. From a purely epistemic point of view all truths should count as equal. Since resources are often scarce and cognitive projects are time-consuming, we sometimes have to prioritize cognitive projects. But these choices are made on the basis of non-epistemic reasons. What about truths that, when known, have the potential to generate further true beliefs? What I have in mind here are general principles, laws, or methodological truths—do these not deserve a prominent status as epistemic goals? I do not think so: because what is at issue here are the *final* goals of inquiry. Having true beliefs about principles, laws, or methods may be instrumentally valuable with respect to promoting the acquisition of further true beliefs, but this does not license giving it the special status of a final epistemic goal.

One further question naturally arises: Given that acquiring as many true beliefs and avoiding as many false beliefs as possible is our final

epistemic goal or twin-goal, what determines that it is? There are three different means of explaining this cognitive goal: (a) the goal may be grounded in facts about our cognitive perspective or our cognitive system, (b) it might be constitutive of taking a certain stance ('the epistemic point of view'), or (c) it might be grounded in objective epistemic values. Proponents of (a) typically claim that humans (and other agents) are generally interested in truth and that this interest is even a presupposition of any successful behavior or navigation through the world (see Kornblith 2002: 137–161). Such a general human interest is said to determine the goal of cognitive inquiry. Let me raise two objections to this view. First, not any human desire or interest can fix our common *epistemic* goal—for example, the desire for happiness does not seem adequate for doing this job. Rather, we must first select the *epistemically* relevant human desires. However, this can only be done by relying on our epistemic concepts. Hence, this view is a further variant of SAE. Second, even if the human interest in truth is not completely arbitrary but is deeply embedded in our cognitive lives, there are still occasions on which we explicitly do not want to know particular truths (when knowing the truth is too cruel or when it would spoil the suspense of an interesting story). Even in these cases we can assess beliefs from an epistemic point of view that would be inadmissible to us if that point of view were constituted by existing desires in truth. A variant of (a) can handle this second objection: We need only modify it to claim that our cognitive goal is determined by the evolutionary function of our cognitive system, rather than our contingent desires (Graham 2014). Accordingly, it is the biological and evolutionarily acquired function of our cognitive system to aim at truth, as it is the biological function of the heart to pump blood through the circulatory system. Yet although this evolutionary determination of the cognitive goal makes it more robust than the desires we happen to have, it is still not robust enough. Imagine that a human-like creature, 'swampman', happens to come into existence through a lightning that strikes a swamp. This creature will lack any normative functions since it has no evolutionary history. Nevertheless, it seems perfectly possible to assess its beliefs (if it has any) from an epistemic point of view.

According to the second option (Alston 2005), the cognitive goal is not grounded in any worldly facts but is simply the result of assessing beliefs from a certain perspective that commits one to nothing much. When we take up the epistemic point of view we assess the beliefs with respect to the stipulated truth-goal. We then try to figure out how well our beliefs and methods perform *given* this goal. One can assess the instrumental value of things with respect to any stipulated goal, even if no one actually pursues this goal. It is still true that certain means are good means with respect to certain goals, no matter whether anybody actually has these goals. One advantage of this view is that it is ontologically cheap and free of any commitments to existing goals or values. But the view

has also certain disadvantages. Of course, one can judge things (beliefs) against any kind of hypothetical measure. The question remains: Why do we choose this rather than any other stance? Moreover, why do we call this stance 'the epistemic point of view'? As far as I can see, the character of the *epistemic* point of view must be fixed by our epistemic concepts. Ultimately, it is again conceptual competence that determines the starting point. Hence, all the problems of SAE and from cross-linguistic diversity recur.

I therefore think that the best strategy is to assume that the epistemic goal is grounded in the intrinsic value of having as many true beliefs and avoiding as many false beliefs as possible. Accordingly, objective facts about values determine the epistemic point of view. These value-facts make certain things desirable, even if they are not actually desired. These facts are not grounded in facts about the practical utility of having true beliefs. It is simply the fact that truth matters in itself. I cannot argue for this view here, but I take it that it is the best way of explaining the epistemic goal.

If having as many true beliefs and avoiding as many false beliefs as possible is the final epistemic goal, then further instrumental values can be derived. The proper targets of assessment are *belief-producing methods*, such as our reliance on specific instruments like calculators or speedometers, our use of methodological strategies and heuristics like relying on experts or using certain algorithms for calculation, or our innate sources of belief like perception, reasoning, or memory. When we assess the instrumental value of these belief-producing mechanisms with respect to the twin-goal of truth, we must carefully pay tribute to both aspects of this goal (maximizing true *and* minimizing false beliefs). Accordingly, a method is (instrumentally) good only if it has a positive truth-ratio, that is, it produces more true than false beliefs. This can be measured by the method's degree of reliability. Methods can be positively correlated with truth, that is to say substantially reliable ($R > 0.5$), they can be indifferent ($R \approx 0.5$), or they can be anti-reliable ($R < 0.5$). For example, reliance on tossing a coin is indifferent; reliance on counter-induction is anti-reliable. Being substantially reliable is necessary but not sufficient for performing well with respect to the overall epistemic goal. Suppose that a given method is highly reliable at the cost of producing only very few beliefs. Although the ratio of true to false beliefs is excellent, this method will not produce many true beliefs—similar, for example, to Descartes' rule of believing only what is certain. However, the cognitive goal does not only require substantial reliability but also calls for a process to be informative, namely to generate many true beliefs. Typically, there is a trade-off between being reliable and being informative. Methods that approximate perfect reliability are often not very informative; they tell us very little about reality. Very informative sources are often not particularly reliable but generate some noise. However, sometimes it is the very fact that a

method is informative that increases its reliability (Grundmann 2010). Suppose that a method M is substantially reliable but is not flawless. When M has produced false beliefs, more information provided by M itself might enable us to detect and correct these false beliefs. For example, vision does not only represent objects and scenarios, it often also represents the quality of its representations in given contexts: You can visually experience that the lighting conditions are bad or that the object is too far away (Weinberg 2007). When we discover that a belief has been formed under sufficiently unfavorable conditions, we suspend judgment. In other cases, more information about a particular target object permits calibration through coherence considerations. In any case, the assessment of cognitive methods has to take into account both reliability *and* informativeness.

Before closing this section, let me address two further issues about the foundations of alethic instrumentalism. First, one might think that deductive reasoning based on the output of substantially reliable methods always constitutes a further instrumentally good epistemic method. The thought is this: Deduction is truth-preserving and therefore perfectly reliable, and it also respects the desideratum of informativeness since it is a cheap way of generating further information. However, as the conjunction fallacy shows, for example, competent deduction need not always lead from reliably based premises to reliably formed conclusions. If the premises are not based on perfectly reliable methods, deductive reasoning with multiple premises may lead to conclusions that are based on methods with a reliability < 0.5.[16] So deductive reasoning does not always extend our instrumentally valuable methods. I will come back to this in the next section.

Second, belief-forming methods have been assessed as being instrumentally valuable with respect to the epistemic goal if they are *in fact* reliable and informative. Nothing that has been said so far supports the idea that good epistemic methods need to be validated from the epistemic agent's own perspective such that she is able to make reasonable epistemic choices with respect to the adopted methods. Such choices make sense only if (a) the assessment of a given method is non-circular and (b) the method constitutes a general policy or strategy. Only methods that satisfy both conditions can be rationally chosen. These conditions would significantly constrain the set of admissible methods.

One standard objection against this whole idea of cognitive guidance from the agent's point of view says that doxastic voluntarism is false because beliefs do not result from epistemic choices. But no matter whether we have choices with respect to our beliefs, we certainly make choices about whether we should use a specific instrument or adopt a particular cognitive strategy.

Can we assign a particular epistemic value to cognitive methods that facilitate such epistemic choices? It is tempting to believe that critical

self-regulation of methods is reliability-enhancing. The thought is that a person who permanently adjusts her adopted methods under critical reflection will be generally more reliable than someone who is equipped with a fixed stock of methods. If this is true, then methods that facilitate assessment from the first-person perspective are more instrumentally valuable with respect to the epistemic goal. However, it is highly dubious whether critical self-assessment is really reliability-enhancing (see Kornblith 2012 for a negative verdict). Our self-assessment seems to be strongly influenced by biases such as overconfidence or confirmation-bias. If this negative verdict turns out right, we cannot derive, purely from considerations of the epistemic goal, the instrumental value of methods that are reflectively assessable. Strictly speaking, methods with this characteristic seem to be preferable only for creatures like us who typically make reflective choices.

To wrap up this section: Having as many true beliefs and avoiding as many false beliefs as possible is our (general) epistemic goal. This twin-goal is grounded in the objective value of true beliefs and the objective value of the absence of false beliefs. Given this goal, the instrumental value of belief-forming mechanisms depends on how reliable and how informative they are. For reflective creatures like us these methods are typically only adoptable and sustainable if their value is reflectively assessable.

4. Alethic Instrumentalism: The Constructive Part

We are now in a position to raise two further questions:

Q1 How can the instrumental values be combined in such a way that the methods licensed by them are epistemically minimally acceptable, given the epistemic goal?

Q2 What are the epistemically best choices among the epistemically acceptable methods?

Let me first address Q1. What would a minimally acceptable belief-forming method M look like?

1. M's reliability should be clearly above 0.5, but it need not approximate 1. M's reliability should be assessed relative to the *actual* world.[17]

The motivation for (1) is straightforward: The method must be substantially reliable if it is to promote the epistemic goal of having more true than false beliefs. But the degree of reliability should not be excessive, since that would threaten the method's informativity. Moreover, reliability in the actual world is what matters. Given that truths in the actual world are typically the goal,[18] hyper-reliability across possible worlds

is not needed, and reliability relative to particular other (e.g. normal) worlds is irrelevant.[19]

2. If M is not innate but must be selected by the epistemic agent, M should constitute some general rule or policy that can be assessed in a non-circular way.

(2) is motivated primarily by the contingent fact that humans are creatures that need reasons to adopt a new method. Hence, they select such methods context-independently on the basis of believing that the method is instrumentally valuable in general. (2) is not a general *epistemic* desideratum since it is not epistemically motivated but is rather motivated by special features of human cognition.

Is this feature of methods compatible with their objective reliability? One might worry that it is not, since it sounds like a typical internalist constraint. But this is misleading. Epistemic internalism with respect to a particular epistemic property E claims either (a) that E supervenes on non-factive mental states of the cognizer[20] or (b) that E is reflexively accessible (i.e. by introspection plus a priori reasoning alone).[21] In contrast, (2) requires only that we can decide independently of a given method M whether it is instrumentally sufficiently good. In our deliberation we may rely on any of our innate methods of belief-formation, including perception.

3. An unrestricted principle of closure under competent deduction does not hold for the extension of minimally acceptable methods.

If all minimally acceptable methods were perfectly reliable (R = 1), deductive reasoning on the basis of reliable premises would always constitute a further reliable method. However, minimally acceptable methods need not be perfectly reliable because otherwise they would lack informativity (see (1)). But if minimally acceptable methods are sufficiently rather than perfectly reliable, the principle of closure does not hold in all cases of multiple-premise deductions. For example, even if we can reliably believe of each ticket of a fair lottery that it will lose, we cannot reliably believe that all tickets will lose. Hence the price of informative methods is the restriction of closure.

To avoid confusion, the constructive part of alethic instrumentalism requires some new terminology. Epistemically minimally acceptable methods will be called 'epistemically competent methods', and beliefs that are produced by epistemically competent methods are called 'epistemically competent beliefs'.

Let us now turn to Q2. In a particular epistemic situation, we want to find out whether a particular proposition *p* is true. Typically, many different competent methods that are informative with respect to *p* are

available to us. What is the best choice for us in this situation? It seems obvious that we should choose the competent method that is most reliable. When the target proposition is fixed, no further considerations play any role for our selection among the competent methods that are informative with respect to the target proposition. Since the best choice from this stock will typically not be perfectly reliable, the output of the best choice need not be true. Methods that are epistemic best choices in a particular situation will be called 'epistemically optimal methods'; beliefs that are produced by epistemically optimal methods will be called 'epistemically optimal beliefs'.

In some respects, the resulting view seems to be rather distant from folk epistemology. For a number of reasons, what English speakers call 'knowledge' does not play any significant role within alethic instrumentalism. First, our general assessment of competent or optimal methods is not sensitive to highly situational (un-)Gettierizing factors. Second, methods that are perfectly reliable in general and hence produce knowledge in the folk sense are too rare to be a main topic in epistemology. Third, knowledge also cannot be analyzed as epistemically optimal true belief, since the combination of truth and being produced by an optimal method is not interesting from a theoretical point of view. Moreover, in alethic instrumentalism there is no place for any internalist conception of justification, nor for epistemic norms. This new framework deviates radically from folk epistemology. To avoid confusion, it seems wise to use the new terminology introduced earlier.

5. Objections

Let me finally address two obvious objections to alethic instrumentalism. Here is the first: Suppose that an epistemic agent A produces the belief that p on the basis of a competent (i.e. sufficiently reliable and informative) method M. Further suppose that there is a body of (confirming or disconfirming) evidence with respect to p that is not incorporated in M. From the perspective of alethic instrumentalism this fact does not seem relevant to the epistemic assessment of A's belief that p. However, disputing the epistemological relevance of further evidence seems deeply mistaken.

Reply: Having used a competent method in forming the belief that p does not exhaust the data that are epistemically relevant to alethic instrumentalism. If the actually operative method ignores some available evidence, there is probably another method available that makes use of this further evidence and is therefore more reliable. Hence, A's belief that p is not epistemically optimal unless it is based on a method that incorporates all available evidence.

Second objection: In justifying the new framework of epistemic evaluation I rely on the old conceptual framework that uses notions such as

'reason', 'evidence', 'justification', or 'knowledge'. However, by replacing the old framework I denigrate the very reasons I had for adopting the new framework. Hence, when I claim that the old framework of justification should be given up I undermine my reasons for doing that very thing. The revisionary approach to epistemology seems to be self-undermining.

Reply: The fact that the new framework can be defended within the old framework does not imply that the new framework can *only* be defended in the old one. Since the new framework is not inconsistent with the old one, it is possible (and in fact probable) that it is also optimal by its own standards.

6. Conclusion

There is a general worry that *Standard Analytic Epistemology* rests on a fundamental mistake, massively overemphasizing the role that epistemic folk concepts such as 'justification' or 'knowledge' play within epistemology. Epistemic folk concepts may not be a proper basis for stable epistemic intuitions, they may be cross-culturally diverse, and they may misrepresent what is epistemically important. Although it is not yet fully clear how serious these concerns are, it is high time to try out an approach to epistemology that is not based on our folk concepts. One promising approach in this direction is what I call 'alethic instrumentalism'. We can understand this as a kind of truth-technology that assesses the instrumental value of belief-forming mechanisms with respect to the properly qualified truth-goal. This approach has much in common with what Bishop and Trout (2005) call 'strategic reliabilism'. However, it is stricter in developing a purely epistemic assessment that does not involve any pragmatic elements. Although this new approach reflects some important features of our old epistemological framework, it wipes out others altogether. From the perspective of alethic instrumentalism, internalist aspects of justification, non-actual world reliability, unrestricted closure, or knowledge do not play any significant role. To avoid confusion, this radical change in perspective should be highlighted by a change in epistemic terminology. The next step would be an assessment of real-life methods, heuristics, and processes that rely on this new framework.

Acknowledgements

Notes

1. See Grundmann and Horvath 2014; Grundmann 2017 for a more comprehensive characterization of this method.
2. See Goldman 2007 for a dissenting view.
3. Somewhat similar approaches are suggested by Quine 1986 (pp. 664–5) and by Bishop and Trout 2005.
4. Fassio and McKenna 2015 argue that the folk concept of knowledge is inconsistent because it is governed by two rules, one of which is sensitive whereas the other is insensitive to stakes (p. 762).
5. Pasnau 2013: 1000–1001, argues that Descartes endorses a theory of epistemic ideals that are unconnected to the extension of the English folk term of knowledge.
6. Thanks to Joachim Horvath, Jens Kipper, and Chris Ranalli for pressing me on this point.
7. Further objections can be found in Horvath 2016, —namely that 'knowledge' does not behave like a natural kind term—and in Grundmann 2008: 560–561.
8. One might worry here that paradigm cases should be selected pre-theoretically, whereas sceptics and Mooreans rely at least on implicit epistemic theories. However, naturalists explicitly claim that intuitive classifications of things are always theory-mediated. Kornblith 1998, e.g., contends: 'Background knowledge will play a substantial role in determining a first pass categorization of samples. Judgments about which features of the rocks are even deemed relevant in classification . . . are themselves theory-mediated, although the operation of theory here is unself-conscious and is better revealed by patterns of salience than it is by overt appeal to principle.' (p. 134).
9. Thanks to Steffen Koch for deepening my understanding of this point.
10. Admittedly, my own approach might be understood as a specific kind of conceptual ethics such that conceptual choices are only guided by purely epistemic goals and values.
11. In a *genuine* dispute the opposing parties do not talk past each other. Nevertheless, in such a dispute both parties may be right, if one regards truth-relativism as a serious option. In contrast, *substantial* disputes are such that at most one party gets it right.
12. Alston's argument is feeble. First, it over-generalizes. Since there is no convergence with respect to the vast majority of philosophical views (and not only in epistemology), philosophers would talk past each other all the time. That is hard to believe. Second, one need not invoke verbal disputes to explain the persistence of controversies: they may also be the result of underlying, unnoticed methodological differences. SeeGrundmann 2018.
13. Joachim Horvath has suggested to me that Alston might take a subjectivist stance here. He then would argue that each subject prioritizes the values that fit best with her overall preferences. However, this would relativize epistemology to individual agents.
14. Often, the question of how reliable certain instruments and heuristics are is an empirical matter.
15. Admittedly, this claim is controversial. In contrast to the view defended here, some epistemologists claim that knowledge or understanding are final values. Still others claim that epistemology has to be based on fundamental epistemic norms rather than values.
16. Hereafter, whenever I talk of reliable premises, conclusions, or beliefs, I mean—strictly speaking—premises, conclusions, or beliefs that produced by a reliable process.

17. Strictly speaking, we need more than that: We need reliability in the actual world over time. Otherwise, we could not rule out methods that when used once lead to a true belief as unreliable. Thanks to Chris Ranalli for discussion about this point.
18. Here I leave aside the issue of modal truths.
19. In contrast, Goldman 1986; Graham 2016 have both argued that it is not reliability in the actual world but reliability in normal worlds that matters for epistemic evaluation.
20. This is what mentalism claims.
21. This is what access internalism claims.

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12 Analytical and Experimental Philosophy in the Reflection of Comparative Philosophy

Anand Vaidya and Purushottama Bilimoria

1. Introduction

There are two central questions in Western epistemology, they are especially prevalent in Ancient Greek, Early Modern, and 20th century Anglo-Analytic philosophy. The question of *analysis* asks: what is the analysis of knowledge? The question of *limits* asks: *what can we know*? Importantly, both of these questions are answered through the joint methodology of *a priori* conceptual analysis involving case analysis and argument evaluation. In partial contrast to the history of Western epistemology, contemporary 21st-century experimental philosophers have been interested in *the universality thesis about knowledge*, UT, which holds that the properties of the English word 'know' and the English sentence '*S* knows that *p*' are shared by translations of these expressions in most or all languages. If UT were true, there would appear to be no value in studying epistemology from a cross-cultural perspective? Our best options for epistemology would either be traditional *a priori* analysis or, as experimental philosophers propose, experimental studies that seek to determine the truth of UT. But there would be no room for cross-cultural investigations of knowledge through historically informed engagement with the philosophical traditions that have existed outside of Western epistemology. With such a strong thesis on the table one should ask: what is the argument for UT?

The *Experimental Argument* for the universality thesis, EUT, shows that when we test non-English speaking natives we find that their intuitions/judgments about knowledge attributions in hypothetical scenarios match those of native English speakers. That is, the experimental evidence suggests a common core that supports a universalism about knowledge, and that common core lines up with investigations into the nature of knowledge done by Western epistemologists who investigate knowledge as justified true belief plus some additional anti-luck factor. The experimental evidence for the universality thesis has changed between the 2001 landmark study and the more careful and comprehensive study

of 2017. In 2001 Weinberg, Nichols, and Stich used the following probe to argue that there is no common core. The exact opposite of what is supposed to hold under UT. Here is the main probe used in the initial study.

> Bob has a friend, Jill, who has driven a Buick for many years. Bob therefore thinks that Jill drives an American car. He is not aware, however, that her Buick has recently been stolen, and he is also not aware that Jill has replaced it with a Pontiac, which is a different kind of American car. Does Bob really know that Jill drives an American car, or does he only believe it?

REALLY KNOWS   **ONLY BELIEVES**

The original conclusions against UT were:

> [A] large majority of Westerners, Ws, give the standard answer in the philosophical literature, viz., "Only Believes." But among East Asians, EAs, this pattern is actually reversed! A majority of EAs say that Bob really knows.
>
> (WNS 2001: 443)

> [W]hat counts as knowledge on the banks of the Ganges does not count as knowledge on the banks of the Mississippi!
>
> (WNS 2001: 444)

However, in Machery, E., Stich, S., Rose, D. et al. (2017), the authors employ four distinct probes to support the existence of a common core. One of the Gettier probes is the following.

> Paul Jones was worried because it was 10 pm and his wife Mary was not home from work yet. Usually she is home by 6 pm. He tried her cell phone but just kept getting her voicemail. Starting to worry that something might have happened to her, he decided to call some local hospitals to ask whether any patient by the name of "Mary Jones" had been admitted that evening. At the University Hospital, the person who answered his call confirmed that someone by that name had been admitted with major but not life-threatening injuries following a car crash. Paul grabbed his coat and rushed out to drive to University Hospital. As it turned out, the patient at University Hospital was not Paul's wife, but another woman with the same name. In fact, Paul's wife had a heart attack as she was leaving work, and was at that moment receiving treatment in Metropolitan Hospital, a few miles away.

On the basis of their study they conclude:

> [T]he Gettier intuition is universal, removing one of the crucial bits of evidence for the cross-cultural challenge to the role of intuitions in philosophy. That said, at this point we should refrain from dismissing this challenge too quickly. Further evidence could show that the Gettier intuition does vary across cultures. Other epistemic intuitions may vary across cultures.
>
> (MSR 2017: 11)

> [P]eople across cultures share a core folk epistemology [. . .] it is plausible that across languages the word that is used to translate "to know" refers to a property speakers distinguish from the possession of a mere justified true belief.
>
> (MSR 2017 11)

It is important to take note of the differences between the 2001 and the 2017 study that improve the reliability of the conclusions that are being drawn from the 2017 study. So: what are the key differences between the two studies? First, in addition to the fact that the new study contains four probes rather than a single probe, the new study also includes a binary comprehension question, a question that asks whether or not the protagonist knows the relevant proposition. The response options are 'Yes, [s]he knows' or 'No, [s]he doesn't know'. Second, it also includes a question about justification, 'How justified is [name of the protagonist] in thinking that [relevant proposition],' followed by a 7-point scale ranging from 'completely unjustified' to 'completely justified'. Third, it asks the question: 'In your view, which of the following sentences better describes [the protagonist's] situation?' followed by two choices, (i) '[Protagonist] knows that [relevant proposition]' and (ii) '[Protagonist] feels like [s]he knows that [relevant proposition] but [s]he doesn't actually know [this].'

In this work we are interested in exploring two questions about UT and EUT that bring out the relevance of comparative and cross-cultural philosophy to both *a priori analysis* and *a posteriori experimental study*.

The Cultural Question: Given that the formal education of subjects from outside of the US typically occurs in modern Western universities, what role does the exportation of Western culture and education play in the evidential value of these subjects' intuitions when testing for cross-cultural variation?

The Combination Question: Is a combined study of UT through comparative philosophy in addition to analytical and experimental methods better than any of these alone?

Our aim is to advance the importance of comparative epistemology in relation to experimental and analytic investigation into UT. Given that EUT challenges the importance of comparative epistemology, we want to offer a response to EUT. The response puts into question the study. However, we are not denying the importance of experimental or analytical research in epistemology, or the importance of investigating UT. Our hope is to draw more interest in comparative epistemology because of the way it helps improve experimental and analytical methods in epistemology, something we hope to show in what follows. We will argue that the development of modern universities in light of colonialism makes it very hard to get intuitions from subjects who were not already partially trained to think from a Western point of view. Following Vaidya (2015), we will also argue that a combined effort that unifies analytical, experimental, and comparative philosophy in the investigation of UT is far superior to one that only focuses on either analytical approaches or experimental approaches alone. We will be focusing on the case of intuitions about knowledge from Bengal in the 2017 study. Although we will be making and emphasizing different points, our work will follow the general direction of Jonardon Ganeri's (2018) *Epistemology from a Sanskritic Point of View*.

2. Subjects, Translations, and Scope

In order for a study of intuitions about knowledge from both Indians and Americans to be successful there must be several conditions that are satisfied. Those conditions fall into two groups, those pertaining to the test subjects and those pertaining to the design of the probe. As was already noted, the new evidence for UT, in comparison to the old evidence, is superior, in part, because the probe was better, since it had more advanced questions. Nevertheless, EUT could still be improved.

On the subject side we would think the following considerations are relevant. First, the Indians in the Indian population must not be mere Indian citizens but at least have some Indian background in terms of how they were raised and taught to think. For example, being born in India and having lived in India would not be sufficient. For one could have spent their whole time in India attending Western private schools with no exposure to Indian culture, such as through interaction with a variety of colloquial usages of words. Second, test subjects should be native speakers of a language such as Hindi or Bengali. For if they have learned Hindi or Bengali as a second language, that would complicate the sense in which they are the actual subjects whose intuitions are required for a cross-cultural study. In contemporary Indian education many Indians learn English while learning Hindi or Bengali at the same time, starting as young as 6 years of age. It would be preferable if the subjects had learned Hindi or Bengali first, instead of learning English at the same

time. For when they learn both simultaneously, it is hard to say that their intuitions are in fact the intuitions of an Indian as opposed *to a bilingual that lives in India*. The general point is that many Indians that would be test subjects in Indian universities would also be largely Westernized in their education by the time they arrived at university and would be considered bilingual, even trilingual, since most Indians speak two languages in addition to English, such as Hindi and Bengali. If a person is bilingual the question is: To which language do their intuitions about knowledge belong? For even if the question is asked in Bengali, we might wonder if there is an under-determination problem, since we do not know how to demarcate intuitions coming from a bilingual. In general, we should not infer from the fact that when one responds to a question asked in Bengali in *Bengali* that the speaker's intuitions are Bengali-Indian intuitions, especially when that person may speak English as fluently as they speak Bengali. Responding in a language other than English to a question asked in another language is not sufficient for grounding the claim that the intuition is driven by intuitions grounded only in the non-English language.

But even if we can get the right subjects, we have to be concerned about providing them with the right materials, for we need to ask them questions in Hindi or Bengali, not in English, and so we need to translate 'knows' into Hindi or Bengali. A number of Indian philosophers have pointed out that there are two terms in the epistemic vicinity of 'knows' that could be used for testing Indian subjects: *jñāna* and *pramā*.

On the assumption that knowledge is factive we must make sure that the term we use to translate 'knows' into Hindi or Bengali is also factive. Bilimoria (1985) and Ganeri (2018) point out that the claim that *jñāna* is factive is quite complicated.[1] Although it can be used to mean knowledge in a factive sense, it is often used in a much weaker sense, perhaps a colloquial sense, where it signifies something like cognition or awareness. One can have a belief, which is a type of cognition, that is not true, and one can also have an awareness, which is also a type of cognition, that is not true. In addition, it is arguable that some instances of *jñāna* are neither true nor not true. As a consequence of these facts about *jñāna*, the term is not a good translation of knowledge. Moreover, because *jñāna* can be used in these two senses, it is best *not* to use it when testing Indians on their intuitions about knowledge. The 2017 study shows that there is a common core between Americans that use 'know' and Indians that use *jñāna*. The study is on a population of speakers that speak both Bengali and English; as a consequence, we might wonder whether some of the test subjects are responding with mixed intuitions, which are neither strictly Bengali nor English.

The term *pramā* is better for translating 'knows,' since it is factive. As Ganeri (2018) and Bilimoria (1985) points out, it is often translated as meaning an experience that represents things as they are (*yathārtha-anubhuti*). Experience is wide enough to include the mental states of a

subject, and the notion 'as things are' is to be understood in a correspondence sense, so that an experience that represents things as they are is both a mental state and veridical in the appropriate sense.

Supposing that *pramā* is a better translation than *jñāna* for the purposes of designing an intuition probe, it is still important to note that some 20th-century Indian philosophers would *not* have thought that moving to *pramā* would help. For them part of the issue pertains to the relation between classical Indian theories of knowledge and post-Gettier attempts at defining knowledge. Karl Potter (1984) discusses whether or not Indian philosophy is even concerned with justified true belief accounts of knowledge. On the assumption that Indian philosophers are not, comparison would be much more difficult. Purushottama Bilimoria (1985) offers a more positive exploration of the connections between 20th-century Anglo-Analytic and philosophy of science inspired accounts of knowledge in relation to classical Indian epistemology. However, he points out that there is at least one asymmetry that should be noted between classical Indian vs. contemporary 20th-century accounts. On the one hand, classical Indian accounts take *jñāna* to be an episodic state of mind as opposed to static or dispositional state of mind.

Perhaps, the most negative take of the possibility of aligning Western and classical Indian accounts of knowledge, especially with respect to Navya-Nyāya, is given by Sibjiban Bhattacharya.

> As cognition in Nyāya may be either true or false, it [might] be [better] to compare the Nyāya theory of true cognition (*pramā*), with knowledge. *Pramā* is true episodic belief[2] while knowledge is usually conceived as justified true belief. The point is that there is no conception of justification in the Nyāya concept of *pramā*. This may be explained by what is technically called '*kūt'a-lin˙gaka-anumiti*' (a true conclusion following from defective premises). . . . "The hill has dust, dust is pervaded by fire; the hill has dust pervaded by fire. Hence the hill has fire." In [this case], the conclusion may be true by fluke. Yet the premises which are evidence of the conclusion are false. Gettier's problems arise out of propositions which happen to be true by accident. It is generally agreed that in such cases there is no knowledge of the proposition. Yet, according to Nyāya the cognition of the conclusion is *pramā*, the defect of the premises cannot affect the truth of the conclusion, and its cognition is *pramā*. Thus, *pramā*, or true cognition, [also] cannot be identified with knowledge.
>
> (Bhattacharya 1996: ix)

Furthermore, we can look at differences with respect to the scope of application of the term 'knowledge' in relation to translations of 'knowledge', such as *pramā*. The term *pramā* is derived from *pra+mā*, the latter of which means to *measure*. Now, if the root of the word that best

translates 'knowledge' into Sanskrit is actually a word that derives from a word that means *to measure* we might wonder whether what 'knowledge' in English picks out maps across all contexts to what '*pramā*' picks out. Consider the following argument.

1. The English word 'knowledge' can be used alongside the Western distinction between *a priori* and *a posteriori* knowledge, as well as the distinction between known by measurement and known by proof.
2. The Sanskrit word '*pramā*' cannot be used alongside the Western distinction between *a priori* and *a posteriori* knowledge or with respect to the distinction between known by measurement and known by proof.
3. If term X in language A only overlaps with term Y in language B in contexts of kind D as opposed to kind E, then the fact that native language speakers of A and B, two distinct cultures, share intuitions in context D, *does <u>not</u>* show that they share a common concept C expressed by X and Y.
4. So, Indians and Americans, for example, don't share a common concept C expressed by 'knowledge' in English and '*pramā*' in Sanskrit.

Let's explore the argument. The English word 'knowledge' can be applied to things for which we do not gain knowledge of through measurement. For example, both inside the philosophy of mathematics and in everyday practice many would suppose that certain mathematical truths are known by proof but not by measurement. Furthermore, they might even hold to the view that given what 'measurement' means in English, it could not be the case that what is known by proof could be known by measurement. Thus, from a comparative frame we might ask: Does *pramā* properly apply to these kinds of truths? Of course, classical Indian epistemology recognizes that someone can know something by proof—even if they have a different conception of what a proof is. Importantly, they also hold that we can know mathematical truths. The worry is subtler: if the whole realm of *a priori* knowledge is about knowledge of things that are not of the type to which 'measurement' properly applies and *pramā* derives from a root that means *measure*, as a consequence: what are we to think of the application of *pramā* to cases of *a priori* knowledge? Critically probing the cross-cultural relation between Western and Sankritic philosophy, we ought to ask: does Sankritic philosophy even engage the issue of *a priori* knowledge in the classical Western sense? And if it does not, why would we assume that knowledge as theoretically explored in Western philosophy lines up neatly with *pramā* in Sankritic philosophy. While there are substantive discussions of counterfactual reasoning and suppositional reasoning (*tarka*) and cases of how contradictions, such as in the phrases 'sky flower' or 'barren mother,' these discussions do not translate over to Western discussions of *a priori reasoning* easily. The main reason why is that discussion of *a priori* reasoning in Western

philosophy often comes along with discussion of the acquisition of justification independent of sense experience through reasoning. However, in classical Indian philosophy the issue of how justification is gained is often left out when one is talking about or using contradictions.

One might respond to this point by holding that Indian philosophy must engage the view that one can know by *a priori* reasoning, since most schools of Indian philosophy hold that inference (*anumāna*) is a source of knowledge (*pramāṇa*). The idea would be that since some cases of inference are cases of *a priori* reasoning and inference is a way of knowing, there must be acceptance of *a priori* knowledge by way of inference. However, this response runs contrary to classical theories of *anumāna*, which have a formal structure that cuts against the plausibility of cases of *anumāna* being *a priori* because of the requirements on what constitutes a good *anumāna*. There are some clear obstacles to the argument that classical Indian philosophers would accept *a priori* knowledge by inferences, given how *anumāna* is designed.

First, we should note that '*anumāna*' literally means *measuring along some other thing*. In English 'proof' does not mean the same thing as 'measurement.' And the two words do not share a common root. By contrast, in Sanskrit, it appears that there is something in common. The root in *pra+mā* means to measure, while the word *anumāna* means to *measure along some other thing*. That is, in Sanskrit there appears to be a strong connection between '*pramā*' and '*anumāna*,' while in English there is little to no connection by way of meaning between 'proof' and 'measurement.'

Second, some Sanskrit philosophers hold a view on which a good inference uses an appropriate and relevant example. For when one offers a good argument *for another*, as opposed to *for oneself*, one provides an example that plays a certain kind of role in the argument. Explicating the Nyāya point of view on argument form, as opposed to the Buddhist point of view, J. L Shaw (2016: 134–136) offers this account of *anumāna* for another.

(*pratijñā*):	The hill has fire. (The *thesis* is an answer to a question that arises on the basis of doubt. The question is: What is to be established?)
(*hetu*):	Because of smoke. (The *reason* is an answer to the question: What signifies what is to be established? In this case smoke signifies what is to be established.)
(*udāharaṇa*):	Wherever there is smoke there is fire, like in a kitchen when one is cooking and observes fire followed by smoke. (The *rule/example* is an answer to the question: Why should one consider *a* to be a signifier of *b*? In this case: Why is smoke a signifier of fire? The answer is given by stating a rule along with examples.)

(*upanaya*):   The case of smoke on the hill is like the case of smoke in the kitchen. (The application step answers the question: Is the hill characterized by the particular relevant kind of smoke?)

(*nigamana*):   The hill has fire. (The conclusion is an answer to the question: Is the fire, which is the significate of this kind of smoke, present on the hill? This is how the conclusion removes the doubt expressed in the thesis.)

In this argument the third step uses both a rule and an example. The so-called Hindu Syllogism has puzzled Western logicians for centuries. Baffled by the structure of the argument, A. H. Ritter (1838) says the following:

> One point alone appears certain, and that is, that they [the Nyāya] can lay but slight claims to accuracy of exposition. This is proved clearly enough by the form of their syllogism, which is made to consist of five instead of three parts. Two of these are manifestly superfluous, while by the introduction of an example in the third the universality of the conclusion is vitiated.
>
> (*as quoted in* Ganeri 2001: 9)

Vaidya (2016a) shows that Ritter's criticisms of the Hindu Syllogism are drastically confused, so we will not go into those details here. For now, our point is the following. Given that there is a distinct theory of inference in Western epistemology than in *Sanskritic* epistemology, why would we further hold that this similarity is sufficient for the possibility of *a priori* knowledge when many instances of the "Hindu Syllogism" are about causal relations, such as in the smoke-fire case? Moreover, classical Indian theories of inference discuss empirical cases of inference and almost never what would be classified by Western epistemologists as pure cases of *a priori knowledge*, such as in arithmetical deduction. Thus, it would seem that even if *pramā* is factive, it might be the case that it has a completely different profile, a profile that makes '*pramā*' only an adequate translation of 'knowledge' for some uses, as opposed to an adequate translation in all cases. So, we should critically ask of EUT: Is it even possible to test for UT when there is no suitable translation for the appropriate word? With this question in mind, we will develop a variant of a well-known dilemma posed against experimental studies by Sosa (2007), which he further discusses in his (2010).

Either there is an *exact* translation of 'knowledge' into Hindi or Bengali because the word in Hindi or Bengali, w, is such that it maps onto every aspect of the use of 'knowledge' in English, or there is an *adequate* translation of 'knowledge' into Hindi or Bengali because the word in Hindi or Bengali, w, is such that it captures a common set of properties $p_1 \ldots p_n$.

If the *exact* translation were to be found, then were the intuitions of Indians' different than those of Americans', at least one of those groups would not be competent with the relevant word. For why would, putting aside insincerity and attentional laziness, there be such differences? They share the same concept! If an *adequate* translation were to be found, then one might ask in virtue of what is $p_1 \ldots p_n$ said to be the set of properties that *needs* to be isolated for saying that an *adequate translation* is in place. For example, many would say that factivity is part of the core of knowledge, and thus we ought to use *pramā* as opposed to *jñāna*. But why was factivity selected to be part of the core? For what reason do we insist that the core of knowledge involves factivity as opposed to some other property, such as that knowledge has parts that include belief and justification? Why couldn't *pramāṇa* (the sources of knowledge) simply be reliable awareness forming systems?

In general, there is a worry that arises when we have the ability to pick different conceptions in the design of a study. The problem is that our experimental results will be determined too closely by the conception of knowledge we test with. If the results are determined in advance, given the mapping of the two populations in relation to the conception of knowledge being tested, what is the point of the test? Is it simply for the purpose of confirming the hypothesis that we already had predicted should hold. While it is consistent with scientific practice to test hypotheses that one predicts would come out true, it is odd in the context of experimental philosophy to pick conceptions of a concept for the purpose of testing with the expectation that they will come out true without a careful historical analysis of the conceptions themselves. As Vaidya (2012) argues, experimental studies aimed at collecting intuitions about supposedly different populations will ultimately depend for their validity on non-experimental intuitions derived from conceptual analysis and research about populations with respect to selecting a conception of a concept for designing and testing. As we will discuss shortly, this is best done by taking into consideration cross-cultural and comparative philosophy.

Concerning a genuine test of UT in India, we have argued here that one needs subjects that are native speakers with the right examples and the right translations. For what it is worth, we believe the best subjects for such testing are Indians that have never learned English, where the actual question concerns *pramā* and not *jñāna*. In addition, what is needed is an examination of the possibility of *a priori* knowledge within classical Indian philosophy.

3. Structural Differences between Sanskritic Epistemology and Western Epistemology

Experimental studies are better situated alongside historical and comparative studies. In our final section we will make the argument for that.

As a point of departure toward that point, we would like to present some high-level differences between, on the one hand, Western epistemology, especially American-Analytic and Anglo-European-Analytic *epistemology*, and, on the other hand, Sanskritic *pramāṇa theory*. There are at least six differences, which are controversial, that we take to be worthy of further discussion in global episetmology.

First, the vast majority of Western epistemology is focused on propositional knowledge. We find lots of discussion in 20th-century epistemology on how, why, and whether *S* knows that *p*. In Sanskritic philosophy the primary focus is not on propositions, for arguably Sanskritic philosophy does not have a conception of propositions.[3] Rather, *pramāṇa theory* is focused on agential knowledge of objects and their qualities.[4]

Second, Western epistemologists, more or less, agree on the sources of knowledge and focus debate on whether or not knowledge is possible. For example, most American-Analytic and Anglo-European-Analytic epistemologists would agree that testimony and perception as well as memory and inference are sources of knowledge. What they debate is how exactly testimony, perception, memory, and inference work as sources of knowledge. In addition, as noted at the outset of this essay, much of the central investigation in Western epistemology is over the *analysis* and *limits* of knowledge. By contrast, in the *pramāṇa debates* of Sanskritic philosophy the backdrop of the investigation is not focused on the *analysis* or the *limits* of knowledge, such as by offering an account of knowledge and showing how it can silence the skeptic. Rather, *pramāṇa* theorists are concerned with debating the sources of knowledge. Most schools of Buddhism only accept perception and inference as sources of knowledge. Both schools of Mīmāṃsā argue against intuition (*yogaja-pratyakṣa*) as a source of knowledge, while arguing in favor of postulation (*arthāpatti*) as a distinct source of knowledge over and above what can be done by inference. Most sects of the Nyāya School accept testimony, memory, perception, and intuition, while also defending comparison (*upamāna*) as a distinct source of knowledge. In general, within Sanskritic philosophy one finds a plethora of debates over the sources of knowledge.

The contrast we are focusing on can be summed up as follows. Western epistemology is concerned with the genus *knowledge* and not so much about its *species* in terms of sources, such as perception. *Pramāṇa theory* is not concerned with the genus *knowledge*, but rather about its *species*. What is the difference? Perhaps the Western tradition is worried about *whether or not we know anything*. The Sanskritic tradition assumes that we do know things and that knowledge is possible. It is concerned with what the *ways of knowing are*, how they work, and which ones are *truly independent of others*. Classical Indian epistemology is concerned with the fundamental sources of knowledge -the instruments of knowledge that cannot be reduced to other instruments of knowledge.

Of course, one can be skeptical about each source and then be skeptical about knowledge itself. Perhaps the Cārvāka School of classical Indian philosophy comes closest to this, since it only endorses perception. Contrastingly, one could show that one source works well, and thus be non-skeptical about knowledge in virtue of the single source. Nevertheless, the contrast in agenda is worth noting, and this wide-angle view of it stands out. The orientation of an investigation matters, and it is clear that the orientation of Sanskritic philosophy is not the same as the orientation of Western epistemology. That doesn't mean that one is better than the other. Rather, it provides us with an opportunity to engage in globally informed epistemological theorizing by providing epistemic friction between partially opposing views of the nature of knowledge.

Third, it is quite common in contemporary Western epistemology to carve off logical theory from epistemology. That is, although we can find discussion of the epistemology of logic in a study of epistemology, it is more common to find discussion of knowledge alongside memory, testimony, perception, or intuition, rather than logic. One usually goes to special logic texts to see discussions of epistemology and logic done together. Mainstream American-Analytic and Anglo-European-Analytic epistemology divorces investigation of inferential and logical knowledge from the core of epistemological investigation. By contrast, in *pramāṇa* theory one finds joint discussion of the sources of *pramāṇa* with the investigation of the theory of inference (*anumāna*). So, while the Cārvāka argue against inference as a source of knowledge, both the Nyāya and the Buddhists accept and develop theories of inference under which it is a source of knowledge. By and large American-Analytic and Anglo-European-Analytic epistemology is not concerned with establishing how inference is a source of knowledge. But, debating how inference is a source of knowledge is a major concern of almost every school of classical Indian philosophy.

Fourth, the vast majority of contemporary American-Analytic and Anglo-European-Analytic epistemology is focused on a componential conception of knowledge on which knowledge factors into components, such as belief, justification, truth, and some anti-luck condition. By contrast, the vast majority of classical Indian philosophers view knowledge as non-componential – at least with respect to the claim that justification is a component of knowledge. That is, for the most part, *pramā* does not factor into belief + justification + truth + some anti-luck condition. Interestingly, classical Indian philosophers look at *pramā* in a manner that is similar to Timothy Williamson's (2002) account of knowledge as a non-factorizable factive mental state. But Williamson's view is in the minority. Most American-Analytic and Anglo-European-Analytic epistemologists either go in for a theory of knowledge that is componential, or they simply drop taking belief as the site of epistemic action and move to taking the agent as the site of epistemic action through endorsement of some kind of virtue epistemology. If the standard orientation of Western

epistemology is either belief-first or agent-first, and the standard orientation of Indian *pramāṇa* debates is knowledge-first, then there would seem to be a large structural gap in how knowledge is conceived of.

Fifth, the vast majority of American-Analytic and Anglo-European-Analytic epistemology in the 20th century operates on and offers analyses of a static time-slice conception of knowledge. It should be noted that there are movements, such as contextualism, that account for context when analyzing knowledge attributions. And there are movements in the logic of belief that discuss partial beliefs and theories of how to update one's beliefs. But, by and large, the main discussions focus on conditions under which *S* knows that *p*. In Sanskritic philosophy the examples and discussions push away from a static conception of information gathering to a dynamic one that is discussed in time and over time. Take the classic example of the *post* that is perceived as a *person* from a distance, or the *rope* that is perceived as a *snake* from a distance. In both of these cases where an object is presented otherwise, the discussion of the example often involves what happens upon the discovery of the fact that what was perceived as a person or a snake turns out to be a post or a rope.

Sixth, the vast majority of Western philosophy is aware of the perspectival nature of knowledge as well as the fact that knowledge can be discussed in a perspectival way. Nevertheless, putting aside contextualism, the dominant focus is on *S* knowing *p* in a non-perspectival way. By contrast, in Indian philosophy, inclusive of Sanskritic philosophy and non-Sanskritic philosophy, there is an embrace of the perspectival nature of knowledge. In fact, many traditions discuss a common example.

The Case of the Five Blind Men and the Elephant

> Several blind men are brought before a king and asked to describe an elephant. An elephant is brought to them and they proceed to feel it with their hands. One, who grasps the elephant's trunk, claims that an elephant is like a snake. Another, grasping a leg, claims it is like a tree. Yet another grasps the tail and says it is like a rope; and another, feeling the elephant's side, claims it is like a wall. The blind men then argue amongst themselves about the true nature of the elephant. Who is correct? Only one that can see the whole elephant can say who is correct?

The example is *not* designed to lead toward skepticism, relativism, or anti-realism. There is an answer to the question of what is before the men: *An elephant.* The example is presented to us to reveal to us that knowledge is perspectival and what we think something is depends in part on our limited view of what we can, for example, perceive. Perception, be it visual or tactile, is perspectival. The blindness of the men is in

fact irrelevant to the example. Were they not blind and the object they were questioned about of a certain size, where it is impossible for them to grasp it all at once, the same problem would manifest itself. They would all be grasping at parts and making judgments based on the parts they could grasp. The blindness of the men is a metaphor for the limitations of individual human cognition. The example can also be used as a basis for arguing that knowledge of a thing, for ordinary humans, is a collective achievement. For it is only when the men in the story talk to each other and share their experiences that they can jointly discover that their judgments are inconsistent and that they must aggregate their information in order to make a better judgment. What is it that feels like a wall in one place, a rope in another, and a tree elsewhere? In jointly inquiring into that question they may conclude that *an elephant* best explains those disparate experiences. Arguably, this is part of the Jaina doctrine of *anekāntavāda*.

Summarizing, much of Western epistemology is concerned with whether we have propositional knowledge on a componential account of knowledge that is static and non-perspectival. By contrast, some Sanskritic *pramāṇa* theorists, such as the Nyāya and the Mīmāṃsā, are concerned with a non-propositional, non-componential, instrument-based question about the sources of knowledge, while others, such as the Jains, are concerned with a perspectival and dynamic conception of knowledge.

With these differences in place, were we to ask a classical Indian philosopher, such as Gaṅgeśa, the 13th century founder of the Navya-Nyāya school, a question concerning knowledge that is focused on a componential account of propositional knowledge, which pertains to whether the person knows, he might react with bewilderment. For *pramāṇa theory* is not exactly concerned with what *epistemology* is concerned with, if there even is one thing that either is consistently concerned with over deep historical time. Although there is overlap between the two projects there are important differences that we should take note of and openly theorize about when constructing a globally informed epistemology. While classical Indian philosophers might have an answer to a question that a Western epistemologists is interested in, they might also express a disinterest in the issue. Importantly, we should not infer from this that there is no common kind that both investigations fall under. Both investigations are concerned with experience in relation to the world and the more general question: What experiences, if any, connect us to the world in an important way? It is just that each investigation is concerned with a different aspect of the question through a different orientation.

Finally, it is worth noting that most Indian university students have little access to, motivation for, or encouragement that drives them to learn the history of their own traditions within their secondary school and college preparatory work. While this is changing now, it has been true for

some time. As a consequence, the dominant Western education, imparted to them through British Colonialism, does not make them candidates for 'Indian' intuitions about knowledge in an interesting sense. It also makes it the case that within the Indian diaspora in America it is even more unlikely that we would find 'Indian' intuitions of the kind we need in order to test UT. Many Indians in the US try very hard to assimilate into American culture and disown their Indian heritage. WNS (2001) does not seem to take this into account in their study. Although we stated that the best way to test UT would be through native Indians that speak, for example, Bengali and do not speak English at all, it would be much better to engage pundits that speak Sanskrit and have no or minimal knowledge of English. For this would prevent the contamination of their intuitions that derive from the study of Bengali, Hindi, or Sanskrit.

An exemplary model of how to have a cross-linguistic dialogue can be found in the famous *Saṃvāda Discussions* carried out by Arindam Chakrabarti in 1991. Another option is to hold conferences on epistemology with both Sanskrit scholars and American-Analytic and Anglo-European-Analytic epistemologists on the model of Jaysankar Shaw's (2000) *Concepts of Knowledge East and West*.

4. Bi-Directional Testing and the Validity of the Empirical Argument for UT

At present the current setup of the experimental argument for UT involves taking examples concerning epistemic luck from 20th-century epistemology, such as Gettier cases and Goldman cases, and testing populations from around the world, such as India and Brazil. We will refer to the current method of testing as the *unidirectional method*, since the direction of testing moves from examples in the Western tradition to intuitions/ judgments from subjects outside of the West. Even the voicing of UT itself has a unidirectional read to it, since it claims that the properties of the English term 'knowledge' are shared by appropriate translations of it in other languages.

We find that this methodology either invalidates the experimental argument for UT or substantially reduces its interest with respect to the production of global epistemology. The ethically sound way to go is to test through the *bi-directional method*. On this method, one investigates UT with examples taken from a variety of traditions: North, South, East, and West. There are two kinds of cases that we can imagine: similar cases and dissimilar cases. *Similar cases* are cases that are like what one finds in 20th-century Western epistemology. *Dissimilar cases* are cases that are present in a non-Western tradition that are different in some important dimension from what we find in the Western tradition. Our suggestion is that bi-directional testing should be used in further investigations of UT. The core set of cases should use *dissimilar cases* that are substantially

discussed in non-Western traditions, in much the same way that Gettier cases are substantially discussed in the Western tradition.

Along these lines it is important to take note of two out of four of the *Śrīharṣa* cases discussed in Ganeri (2018). We don't think that these cases should be added to the set of test cases for testing UT, since they are similar cases. Consider two of the four cases:

The Case of the Self-Confident Gambler

1.   A gambler upon seeing the closed fist of his opponent is immediately convinced that there are five shells in his opponent's hand. There are in fact five shells in his hand.

The Case of the Deceived Deducer

2.   A deduction is made to the effect that a fire is burning on the far-off mountain, based on the premise that a plume of smoke can be seen rising up above it. What is in fact seen is a plume of mist in the crisp early morning air. Yet it is true that there is a fire burning on the far-off mountain.

In both cases we could ask a test population whether the subject in question, the gambler or the deducer, know the claim in question: That there are five shells or that there is a fire burning on the far-off mountain. However, both of these cases involve the general property of epistemic luck that is already tested for in a Gettier case or Russell's case of the broken watch that has stopped exactly the day before at the time at which one is checking the watch the day after. No substantial dimension is added to the set of test cases through the addition of these two cases. That does not mean that these cases are not important. For as Ganeri points out, unlike Gettier, *Śrīharṣa* uses these cases, along with others, to destroy the whole project of searching for an analysis of knowledge, not to refute a definition of knowledge. So, while similar cases might be ineffective under one aspect, such as testing a dimension of knowledge, they may be important to consider under a different aspect, what role they are being put to use for.

Rather, the relevant test cases to add to UT, in the case of Indian philosophy, would concern instruments as opposed to analyses of knowledge. What do we have in mind? At least two cases seem to be relevant. On the one hand, classical Indian epistemology engages the question of whether comparison or analogy (*upamāna*) and postulation (*arthāpatti*) are two distinct instruments of knowing not reducible to perception and inference either alone or in combination. On the other hand, classical Indian epistemology seriously engages the question of how we can know absences, such as that my computer is absent from the table, when it was just there

minutes ago. While there is some contemporary discussion of the epistemology of absence in recent analytic epistemology and 20th-century phenomenology, there is a longstanding engagement with the issue in classical Indian epistemology, see Vaidya, Bilimoria, and Shaw (2016b). So, one way to add to the test cases for UT would be to add cases about instruments and absence. For example, consider the following sets of vignettes.

Cases of Postulation

3. Going to your friend's home one day, you discover they are not there. Armed with background knowledge that they are alive, you conclude they must be out.
4. You are walking out of a shop behind someone whose arms are full with purchases. Upon reaching the closed door, she looks back at you and says, 'Door, door.' You conclude that she wants you to open the door.

Cases of Absence

5. You are instructed to pick up the laundry without the red tags from a batch of laundry some of which have red tags and some of which do not have any tags. You pick up the laundry without the red tags. Do you perceive the absence of red tags or merely infer their absence from the presence of something else?
6. You are watching a potter complete the construction of a pot through the assembly of the parts into the final pot. Just before he completes the construction of the pot you see the final version of it. Do you perceive the absent complete pot prior to its completion or do you merely infer it in a projective manner from your expectation of what is to come?

5. Epistemic Luck: An Indo-Analytic Engagement

Because of the large concern with epistemic luck in both the Anglo-analytical literature, Anglo-European-Analytic literature, and the experimental literature concerning knowledge, it is important to take a moment to see how a school of classical Indian philosophy might have responded to the well-known Gettier cases from his original 1963 paper. In Gettier's original piece he uses the following conditions on justification to get his cases off the ground. (*Closure*) if x is justified in believing that p, and x is justified in believing that if p, then q, then x is justified in believing that q. (*Fallibility*) it is possible for x to be justified in believing that p, even though p is false. Gettier then provides two counterexamples to one-direction of the tripartite analysis of knowledge: *If x has a justified true belief in p, then x has knowledge of p.*

The First Case: The Man with Ten Coins in his Pocket

1. Jones is the man who will get the job, and Jones has ten coins in his pocket.
2. The man who will get the job has ten coins in his pocket.

   (a) Smith has strong evidence for (1), and he believes (1).
   (b) Smith infers (2) from (1) and has justification for (2) from (1) and *Closure*.
   (c) The fact that Smith has ten coins in his pocket and that Smith will get the job is what makes (2) true.

So, *Smith has a justified true belief* in (2). But, intuitively, *Smith does not know* (2).

The Second Case: The Ford or Barcelona Disjunction Inference

1. Jones owns a Ford.
2. Either Jones owns a Ford or Brown is in Barcelona.

   (a) Smith has strong evidence for (1), and he believes (1).
   (b) Smith infers (2) from (1) and has justification for (2) from (1) and *Closure*.
   (c) The fact that Brown is in Barcelona is what makes (2) true.

So, *Smith has a justified true belief* in (2). But, intuitively, *Smith does not know* (2).

How might classical Indian philosophers have reacted to these counterexamples to the equivalence between knowledge with justified true belief? Recall that earlier I noted two important facts about classical Indian traditions of philosophy: (i) they did not embrace a componential view of knowledge that includes justification and belief, and (ii) they had a different theory of inference from that of the standard model used in Western epistemology. As a consequence, their engagement with these kinds of examples has to come from resources found within a specific thinker or school, and these resources have to be developed and deployed via contemporary proponents of the school. In his (2015) J. L. Shaw offers a response to both counterexamples on behalf of the Nyāya School using resources from the school concerning reference and logic. Concerning the first Gettier case, Shaw says the following.

> [T]he Nyāya philosophers such as Udayana would claim that *the conclusion of this inference is false. Therefore, it cannot be a case of knowledge.* The belief or the cognition of Smith expressed by the sentence 'The person who will get the job has ten coins in his pocket'

can be expressed in the following way: 'The person who will get the job presented under the mode of being identical with Jones has ten coins in his pocket'. This is due to the fact that the conclusion is derived from the belief that Jones is the person who will get the job, and Jones has ten coins in his pocket. Since Smith got the job and has ten coins in his pockets, the belief of Smith is false. Since this sentence can be used to express different beliefs, *we are not simply concerned with the truth of the sentence, but with the belief expressed by this sentence.* In this case the belief it expresses is false.

(Shaw 2015: 93, *emphasis added*)[5]

The Argument:

1. JTB is about belief.
2. The phrase 'the man with ten coins in his pocket' can be used to capture two distinct beliefs. One that has Jones as the referent and the other that has Smith as the referent.
3. Smith's belief is about Jones, not himself.
4. So, although the sentence expresses a true belief, it is not Smith's true belief, since Smith's belief is about Jones.

Concerning the second counterexample, Shaw says the following:

[I]t is a case of belief, truth and justification, but not a case of justified true belief, where justification is a qualifier of true belief. The belief (or cognition) expressed by the sentence 'Jones owns a Ford or Brown is in Barcelona' is true by virtue of the fact that Brown happens to be in Barcelona. Since it is deduced from the premise 'Jones owns a Ford' it is in accordance with the rules of logic. If 'justification' means 'being derived from premise(s) by applying the rules of logic', then it has justification. . . . [T]his counterexample of Gettier's lacks justified true belief, although it is true and has justification. This is analogous to the truth of the sentence 'The man with a red iron mask is in this room'. This sentence cannot be claimed to be true by virtue of having a man in this room, an iron mask in this room and a red object in this room. Hence from the Nyāya point of view justification is a qualifier of true belief. Here justification means some sort of guarantee for its truth.

(Shaw 2015: 93, *emphasis added*)

The Argument:

1. There is a difference between (i) justified true belief, and (ii) true belief *qualified* by justification.

2.   When Smith believes that either Jones owns a Ford or Brown is in Barcelona, he has (i) a justified true belief, and not (ii) a true belief *qualified* by justification.

3.   Just as the sentence 'the man with the iron mask is in the room' is not made true by a room with a man, an iron mask, and a red object, a proposition is not a piece of knowledge because it is a justified true belief, rather it has to be a true belief *qualified* by justification.

4.   So, the Ford or Barcelona Case is not a counterexample.

With these responses in place we might wonder: How important are the Gettier cases to global epistemology? As Ganeri (2018) already has shown, there are cases, deriving from *Śrīharṣa* that are similar to the Gettier cases, in that they involve epistemic luck. In developing global epistemology we might want to consider the relationship between explorations of epistemic luck across traditions and cultures to see how it was discussed and treated, and why it was thought to be significant.

6. Embracing ACE Philosophy

Given what has been discussed so far, let us now define and explain a kind of philosophy, following Vaidya (2015), that Vaidya calls ACE philosophy. Let 'A' stand for analytic conceptual analysis, 'C' for historically informed comparative cross-cultural analysis, and 'E' for experimental-or-empirically-engaged analysis. Consider, the following triangle as one that describes the relation between these three areas of investigation.
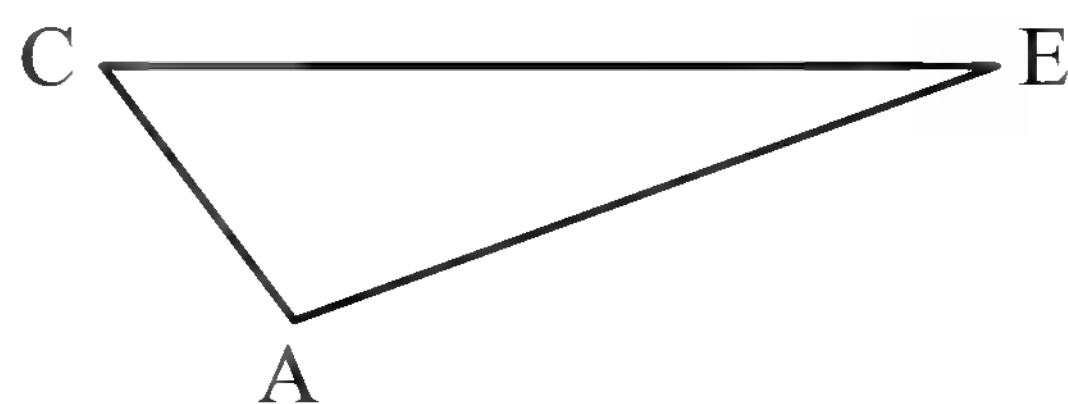
A priori conceptual analysis is the base of the ACE method. But one might think that is bad, since conceptual analysis is often criticized on the basis of the product it aims for, the final true analysis of a concept, such as knowledge, beauty, or justice. However, it need not be used for that purpose. ACE does not focus on complete conceptual analysis, rather it focuses on conditional conceptual analysis, the analysis is done for a quite distinct purpose that aims at something less than the complete analysis of a concept, such as knowledge. In conditional conceptual analysis one can aim to simply determine links between concepts for the purpose of testing intuitions about cases. Of course, not all conceptual links are coherent. For example, the link *if x is an instance of knowledge, then*

x is a table does not make sense in any language. Because some links are incoherent or implausible universally, there is an important sense in which conditional conceptual analysis is important for inquiry. Taking note of this distinction and the widespread use of conditional conceptual analysis, one can define a path toward the unification of analytical, experimental, and comparative philosophy.

For example, in order to test whether there is variation between Europeans and Asians over the role of justification in knowledge, we need to first control for another component of knowledge outside of justification. That is, we need to choose a partial conception of knowledge based on conditional analysis that includes justification, but also other features. And importantly, different conceptions of knowledge can include justification yet vary over other components. To illustrate the point, take note of the fact that there are both (i) factive and (ii) non-factive conceptions of knowledge.

(i) $\Box[Kp \rightarrow p]$, necessarily, if x knows that p, then p is true.
(ii) $\Diamond[Kp \mathbin{\&} \neg p]$, it is possible for x to know that p, and yet p is false.

If we want to test to see whether there is variation of intuitions on (iii), we have to pick a conception of knowledge from (i) and (ii).

(iii) $[Kp \rightarrow JBp]$, If x knows that p, then x is justified in believing that p.

Supposedly, a study might want to show that Europeans and Asians share a factive conception of knowledge captured by (i) and disagree over justification captured by (iii). If the results showed that Asians hold (ii), but Europeans hold (i), and they disagree over (iii) we would be in a situation in which the two groups have different intuitions. But more importantly, we would be in a situation in which we ought to say: the two groups don't share a common enough conception of knowledge, if factivity is central to knowledge in the way the function of a table is central to what a table is, but not its color. As a consequence, the question arises: How do we pick what conceptual connections we should hold to for the purpose of cross-cultural experimental investigation? There is no way to do this other than by engaging in analytical and conceptual inquiry. But, importantly, there is *no way to do this responsibly without doing it in a historically informed manner that itself is cross-cultural.*

That is, had we looked at the history of classical Indian philosophy for information and inspiration we might never have attempted to test for cross-cultural variation over 'knowledge' via *jñāna* as opposed to *pramā*. And given the differences between Sanskritic and American-Analytic and Anglo-European-Analytic philosophy we might have designed our investigation of UT in a way that is sensitive to bi-directional testing, as well as the kinds of cases in American-Analytic and Anglo-European-Analytic

philosophy that 'knowledge' can be applied to, as opposed to the standard cases in Sanskritic philosophy where '*pramā*' is used. The WNS (2001) cross-cultural study of the Gettier intuition would have dramatically been better had there been consideration of the actual history of classical Indian philosophy in relation to what was being tested.

Moreover, as Vaidya (2015) argues, by putting together Analytical philosophy, Comparative philosophy, and Experimental-or-Empirically-Engaged philosophy, we are in a better position to do philosophy in a way that employs a wider set of tools from what we find in any of these kinds of philosophical methods taken alone. What we have is ACE philosophy where 'analytical' means nothing more than analysis by reflection on cases, 'comparative' means historically and linguistically informed cross-cultural and cross-traditional investigation, and 'experimental-or-empirically-engaged' refers either to: (a) running some kind of study on a population that uses an effective instrument, not necessarily surveys, or (b) engaging empirical work, such as what we find in cognitive science, neuroscience, anthropology, psychology, or linguistics. We think that ACE philosophy is one kind of philosophy. While it is difficult and requires teamwork and a lot of training, it is also highly engaging and it embraces a cross-cultural and multi-disciplinary methodology that is beneficial to the program of globally informed philosophy, which we favor.

Acknowledgements

Notes

1. In general, we will allow context to determine when we are using a Sanskrit word or mentioning a Sanskrit word, rather than always quoting when mentioning, and not quoting when using.
2. It is not clear why Bhattacharya uses the word 'belief' as opposed to 'cognition' The contrast would appear to be that between *true episodic cognition* against *justified true belief*.
3. See *Saṃvāda: A dialogue between two traditions* (1991) for substantiation of the claim that Sanskritic philosophy arguably does not have a conception of 'proposition' as used by Russell and Frege.
4. Note our claim here is neither that (i) knowledge for Sanskrit philosophy cannot be expressed propositionally nor (ii) that there are no constructions for knowledge that are propositional in structure. Rather, we are commenting on the fact that the primary focus or agenda of knowledge sources does not

present itself as engaging propositional knowledge as such. For a substantive discussion of issues about the *relata* of knowledge, see Bilimoria (1985).

5. It is important to point out that Jay Shaw is offering *one* interpretation of how a Nyāya philosopher, such as Udayana, would respond to the first Gettier case. It should be noted that Nirmalya Guha has also pointed out another way of showing how the Nyāya might reject the first Gettier example. On our interpretation of Guha, the view argued for is that some theorists of the Nyāya tradition would hold that there is a special coupling relation, functioning somewhat like conjunction, between the thesis and the conclusion moving through the inference. The special relation blocks the conclusion of a case of Gettier luck from being true within the context of the Hindu Syllogism. For example, consider a Gettier-like case from classical Indian philosophy. Upon seeing dust *as smoke* above a mountain, one might say, 'there is a fire on the mountain' because 'there is smoke on the mountain.' This relation can be characterized as a minimal conjunction relation, to say that A because B one must also be saying A and B. Now we might imagine that there is a fire on the mountain, but no smoke because there is enough dust. If the conclusion, 'there is a fire on the mountain' contains the perception that caused it, 'there is [dust] smoke on the mountain,' one cannot hold that the conclusion 'there is a fire on the mountain' is true, since the conclusion also has attached to it 'there is smoke on the mountain,' when in fact it is dust above the mountain, which is causing one to wonder whether there is a fire on the mountain. This account of how to reject the truth of a Gettier-like conclusion in the context of the Hindu Syllogism is also available.

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